

Abacus

Ábaco

Architecture. A slab on the top of the capital of a column.

Abrasion

Abrasión

A scraped area on the skin or on a mucous membrane, resulting from injury or irritation.

Abutment

Estribo

An abutment is an end support of a bridge superstructure. Abutments are used for the following purposes: to transmit the reaction of superstructure, to the foundations, to retain the earth filling, to connect the superstructure, to the approach roads.

Acceleration

Aceleración

In physics or physical science, acceleration (symbol: a) is defined as the rate of change (or derivative with respect to time) of velocity. It is thus a vector quantity with dimension length/time². In SI units, acceleration is measured in metres/second² ($m \cdot s^{-2}$) using an accelerometer.

Activated sludge

Fangos activos

Activated sludge plants use a variety of mechanisms and processes to use dissolved oxygen to promote the growth of biological floc that substantially removes organic material. It also traps particulate material and can, under ideal conditions, convert ammonia to nitrite and nitrate ultimately to nitrogen gas, (see also denitrification).

Adhesion

Adhesión

Is the molecular attraction exerted between bodies in contact.

Aggregate

Árido

Granular material, such as sand, gravel, crushed stone, used with a hydraulic cementing medium to produce either concrete or mortar.

Air-entrained concrete

Hormigón celular

Concrete injected with small air bubbles. Air-entrained concrete offsets the effects of frost and increase resistance to certain chemicals.

Airport

Aeropuerto

An airport is a facility where aircraft such as airplanes and helicopters can take off and land. An airport minimally consists of one runway or helipad (for helicopters), but other common components are hangars and terminal buildings. Additionally, an airport may have a variety of facilities and infrastructure, including fixed base operator services, air traffic control, passenger facilities such as restaurants and lounges, and emergency services.

Algorithm

Algoritmo

In mathematics, computing, linguistics, and related disciplines, an algorithm is a finite list of well-defined instructions for accomplishing some task that, given an initial state, will terminate in a defined end-state.

Ampere

Amperio

The ampere, in practice often shortened to amp, (symbol: A) is a unit of electric current, or amount of electric charge per second. The ampere is an SI base unit, and is named after André-Marie Ampère, one of the main discoverers of electromagnetism.

Anaerobic digestion

Digestión anaerobia

Anaerobic digestion (AD) is the harnessed and contained, naturally occurring process of anaerobic decomposition. An anaerobic digester is an industrial system that harnesses these natural process to treat waste, produce biogas that can be used to power electricity generators, provide heat and produce soil improving material.

A

Anchor

Anclaje

A mechanical device that holds wire in place. When the concrete is sufficiently strong, we release anchors at the ends of the wire. The anchors keep the wires embedded in the concrete.

Anisotropy

Anisotropía

Anisotropy (the opposite of isotropy, or homogeneity in all directions) is the property of being directionally dependent. It can be defined as a difference in a physical property (absorbance, refractive index, density, etc.) for some material when measured along different axes.

Apron

Espigón

An apron is used as a ramp to connect shoreside facilities with a barge or ferry at a ferry slip.

Aqueduct

Acueducto

An aqueduct is an artificial channel that is constructed to convey water from one location to another.

Aquifer

Acuífero

An aquifer is a geologic unit (or layer) of permeable material (like sand and gravel) that is capable of providing usable quantities of water to a well. Aquifers can be confined or unconfined.

Arch

Arco

An arch is a curved structure capable of spanning a space while supporting significant weight. The arch is significant because, in theory at least, it provides a structure which eliminates tensile stresses in spanning an open space. All the forces are resolved into compressive stresses. This is useful because several of the available building materials such as stone, cast iron and concrete can strongly resist compression but are very weak when tension, shear or torsional stress is applied to them.

Architecture

Arquitectura

Architecture (from Latin, *architectura* and ultimately from Greek, *αρχιτεκτων*, "a master builder", from *αρχι-* "chief, leader" and *τεκτων*, "builder, carpenter") is the art and science of designing buildings and structures.

Arch bridge

Puente arco

An arch bridge (sometimes deck arch bridge to distinguish it from a through arch bridge) is a bridge with abutments at each end shaped as a curved arch. Arch bridges work by transferring the weight of the bridge and its loads partially into a horizontal thrust restrained by the abutments at either side. A viaduct (a long bridge) may be made from a series of arches, although other more economical structures are typically used today.

Arch dam

Presa arco

In the arch dam, stability is obtained by a combination of arch and gravity action. If the upstream face is vertical the entire weight of the dam must be carried to the foundation by gravity, while the distribution of the normal hydrostatic pressure between vertical cantilever and arch action will depend upon the stiffness of the dam in a vertical and horizontal direction.

Area

Área

Area is a physical quantity expressing the size of a part of a surface. The term can also be used in a non-mathematical context to be mean "vicinity".

Asphalt

Asfalto.

Asphalt is a sticky, black and highly viscous liquid or semi-solid that is present in most crude petroleum and in some natural deposits. Asphalt is composed almost entirely of bitumen. There is some disagreement amongst chemists regarding the structure of asphalt, but it is most commonly modeled as a colloid, with asphaltenes as the dispersed phase and maltenes as the continuous phase.



Asphalt concrete

Hormigón asfáltico

Asphalt concrete, normally known simply as asphalt, is a composite material commonly used for construction of pavement, highways and parking lots. It consists of asphalt binder and mineral aggregate mixed together then laid down in layers and compacted.

Atom

Átomo

The word atom originally denoted a particle that cannot be cut into smaller particles, the atoms of modern parlance are composed of subatomic particles:

electrons, which have a negative charge, a size which is so small as to be currently unmeasurable, and which are the least heavy (i.e., massive) of the three;

protons, which have a positive charge, and are about 1836 times more massive than electrons; and neutrons, which have no charge, and are the same size as protons.

Alloy

Aleación

An alloy is a homogeneous mixture of two or more elements, at least one of which is a metal, and where the resulting material has metallic.

Axle

Eje

An axle is a central shaft for a rotating wheel or gear. In some cases the axle may be fixed in position with a bearing or bushing sitting inside the hole in the wheel or gear to allow the wheel or gear to rotate around the axle. In other cases the wheel or gear may be fixed to the axle, with bearings or bushings provided at the mounting points where the axle is supported. Sometimes, especially on bicycles, the latter type is referred to as a spindle.

Balustrade

Balaustrada

A baluster is a moulded shaft, square or circular, in stone or wood and sometimes in metal, supporting the coping of a parapet or the handrail of a staircase, an assemblage of them being known as a "balustrade".

Barrel vault

Bóveda de cañón

A Barrel vault, also known as a tunnel vault or a wagon vault, is an architectural element formed by the extrusion of a single curve (or pair of curves, in the case of a pointed barrel vault) along a given distance. The curves are typically circular in shape, lending a semi-cylindrical appearance to the total design. The barrel vault is the simplest form of a vault: effectively a series of arches placed side by side, i.e., one after another.

Basin

Dársena

Used for the reception of boats, in which the water level is maintained; also called a tidal basin or canal basin.

Battery

Batería

In science and technology, a galvanic cell is an electrochemical cell that stores chemical energy and makes it available in an electrical form, and a battery is a string of two or more cells in series.

Beam

Viga

A beam is a structural element that carries load primarily in bending (flexure). Beams generally carry vertical gravitational forces but can also be used to carry horizontal loads (i.e. loads due to an earthquake). The loads carried by a beam are transferred to columns, walls, or girders, which then transfer the force to adjacent structural compression members. In Light frame construction the joists rest on the beam.

A

B

Beam bridge

Puente de vigas

A 'beam bridge' is a rigid, horizontal structure that rests on two end supports, and carries traffic loads by acting structurally as a beam. It is a direct descendant of the log bridge, now more normally made from shallow steel 'I' beams, box girders, reinforced concrete, or post-tensioned concrete. It is frequently used in pedestrian bridges and for highway overpasses and flyovers. As is its ancestor, this bridge is in structural terms the simplest of the many bridge types.

Bearing

Cojinete, rodamiento

A bearing is a device to permit constrained relative motion between two parts, typically rotation or linear movement. Bearings may be classified broadly according to the motions they allow and according to their principle of operation.

Bearing capacity

Tensión admisible

In geotechnical engineering, bearing capacity is the capacity of soil to support the loads applied to the ground. The bearing capacity of soil is the maximum average contact pressure between the foundation and the soil which will not produce shear failure in the soil. Ultimate bearing capacity is the theoretical maximum pressure which can be supported without failure; while allowable bearing capacity is the ultimate bearing capacity divided by a factor of safety.

Bedrock

Cimiento

Bedrock is the native consolidated rock underlying the Earth's surface. Above the bedrock is usually an area of broken and weathered unconsolidated rock in the basal subsoil. The term implies that the rock lies in beds, or strata. Under any given location on the surface of the planet, rock will be found.

Bending

Flexión

In engineering mechanics, bending (also known as flexure) characterizes the) characterizes the behavior of a structural element subjected to a lateral load. A structural element beamsubjected to bending is known as beam.

Bending moment

Momento flector

A bending moment in physics is an example of an internal force that is induced in a restrained structural element when external forces are applied. Loading tends to cause failure in two main ways:

by shearing the beam across its cross-section.

by bending the beam to an excessive amount.

Bentonite

Bentonita

Bentonite is an absorbent aluminium phyllosilicate generally impure clay consisting mostly of montmorillonite, $(\text{Na,Ca})_0.33(\text{Al,Mg})_2\text{Si}_4\text{O}_{10}(\text{OH})_2 \cdot (\text{H}_2\text{O})_n$.

Much of bentonite's usefulness in the drilling and geotechnical engineering industry comes from its unique rheological properties. Relatively small quantities of bentonite suspended in water form a viscous, shear thinning material.

Berth

Atracadero

Berth is the term used in ports and harbours to define a specific location where a vessel may be berthed, usually for the purposes of loading and unloading. Most berths will be alongside a quay or a jetty (large ports) or pontoons (small harbours and marinas).

Binder

Aglomerante

A binder is a material used to bind together two or more other materials in mixtures. Its two principal properties are adhesion and cohesion.

Biofilm

Película biológica

A biofilm is a complex aggregation of microorganisms marked by the excretion of a protective and adhesive matrix. Biofilms are also often characterized by surface attachment, structural heterogeneity, genetic diversity, complex community interactions, and an extracellular matrix of polymeric substances.

Bitumen

Betún

Bitumen is a mixture of organic liquids that are highly viscous, black, sticky, entirely soluble in carbon disulfide, and composed primarily of highly condensed polycyclic aromatic hydrocarbons. Bitumen is the residual (bottom) fraction obtained by fractional distillation of crude oil. It is the heaviest fraction and the one with the highest boiling point.

Blanked

Estrato de un material

A thin widespread geologic deposit.

Boiler

Caldera

A boiler is a closed vessel in which water or other fluid is heated under pressure. The fluid is then circulated out of the boiler for use in various processes or heating applications.

Bond

Aparejo

To form a permanent tight joint through hardening. Concrete bonds very strongly with steel rods. This is a test to see how well the pieces will bond.

Boulder

Canto rodado

In geology, a boulder is a rock with grain size of usually no less than 256 mm (10 inches) diameter. While a boulder may be small enough to move or roll manually, others are extremely massive. In common usage, a boulder is too large for a person to move. Smaller boulders are usually just called rocks or stones.

Box girder bridge

Puentes de sección cajón

A box girder bridge is a bridge where the main beams comprise girders in the shape of a hollow box. The box girder normally comprises either prestressed concrete, structural steel, or a composite of steel and reinforced concrete. The box is typically rectangular or trapezoidal in cross-section. Box girder bridges are commonly used for highway flyovers and for modern elevated structures of light rail transport. Although normally the box girder bridge is a form of

beam bridge, box girders may also be used on cable-stayed bridges and other forms.

Breakwater

Rompeolas

Breakwaters are structures constructed on coasts as part of coastal defense or to protect an anchorage from the effects of weather and longshore drift.

Breccia

Conglomerado

Breccia is a rock composed of angular fragments of rocks or minerals in a matrix, that is a cementing material, that may be similar or different in composition to the fragments. A breccia may have a variety of different origins, as indicated by the named types including sedimentary breccia, tectonic breccia, igneous breccia, impact breccia and hydrothermal breccia.

Bridge

Puente

A bridge is built to span a gorge, valley, road, railroad track, river, body of water, or , or any other physical obstacle. Designs of bridges vary depending on the function of the bridge and the nature of the terrain where the bridge is to be constructed.

Brick

Ladrillo

A brick is a block of ceramic material used in masonry construction and sized to be laid with one hand using mortar.

Brittle

Frágil

A material is brittle if it is liable to fracture when subjected to stress. That is, it has little tendency to deform (or strain) before fracture. This fracture absorbs relatively little energy, even in materials of high strength, and usually makes a snapping sound.

Broom finish

Acabado de barrido

The surface texture obtains by stroking a broom over freshly placed concrete.

Bucket

Cubo

A bucket, also called a pail, is a watertight, vertical cylinder or truncated cone, with an open top and a flat bottom, usually attached to a semicircular carrying handle called the bail.

Building

Construcción

In architecture, construction, engineering and real estate development the word building may refer to one of the following: Any man-made structure used or intended for supporting or sheltering any use or continuous occupancy, or an act of construction.

Building codes

Códigos (Normas) de construcción

A building code, or building control, is a set of rules that specify the minimum acceptable level of safety for constructed objects such as buildings and nonbuilding structures. The main purpose of the building codes is to protect public health, safety and general welfare as they relate to the construction and occupancy of buildings and structures. The building code becomes law of a particular jurisdiction when formally enacted by the appropriate authority. Building codes are generally intended to be applied by architects and engineers, but are also used for various purposes by safety inspectors, environmental scientists, real estate developers, contractors and subcontractors, manufacturers of building products and materials, insurance companies, facility managers, tenants, and others.

Building engineering

Edificación

Building engineering, commonly known in the US as architectural engineering, is an emerging engineering discipline that concerns with the planning, design, construction, operation, renovation, and maintenance of buildings, as well as with their impacts on the surrounding environment. As building construction projects are increasingly large and complex, the discipline requires pertinent knowledge integrated from traditional well-established disciplines.

Building insulation

Aislantes

Building insulation, thermal insulation added to buildings for comfort and energy efficiency.

Building material

Materiales de construcción

Building material is any material which is used for a construction purpose. Just about every type of available material has been used at one time or another for creating various human and animal homes, structures, and technologies. This reference deals with habitats and structures including homes.

Bulldozer

Bulldozer

A bulldozer is a very powerful crawler (caterpillar tracked tractor), equipped with a substantial metal plate (known as a blade), used to push large quantities of soil, sand, rubble, etc, during construction work. The term "bulldozer" is often used to mean any heavy engineering vehicle, but precisely, the term refers only to a tractor (usually tracked) fitted with a dozer blade. That is the meaning used herein.

Bouyancy

Flotabilidad

In physics, buoyancy is the upward force on an object produced by the surrounding fluid (i.e., a liquid or a gas) in which it is fully or partially immersed, due to the pressure difference of the fluid between the top and bottom of the object.

Buttress

Contrafuerte

A buttress is an architectural structure built against (a counterfort) or projecting from a wall which serves to support or reinforce the wall. Buttresses are fairly common on more ancient buildings, especially in Germany, as a means of providing support to act against the lateral (sideways) forces arising out of the roof structures that lack adequate bracing.

Cable-stayed bridge

Puente atirantado

A cable-stayed bridge is a bridge that consists of one or more columns (normally referred to as towers or pylons), with cables supporting the bridge deck. There are two major classes of cable-stayed bridges, differentiated by how the cables are connected to the tower(s). In a harp design, the cables are made nearly parallel by attaching cables to various points on the tower so that the height of attachment of each on the tower is similar to the distance from the tower along the roadway to its lower attachment. In a fan design, the cables all connect to or pass over the top of the tower. The cable-stay design is the optimum bridge for a span length between that of cantilever bridges and suspension bridges.

Caisson

Cajón

In geotechnical engineering, a caisson is a retaining, watertight structure used, for example, to work on the foundations of a bridge pier, for the construction of a concrete dam, or for the repair of ships. These are constructed so that the water can be pumped out so the working environment is dry. When piers are to be built using the open caisson and it is not practical to reach suitable soil, friction pilings may be driven to form a suitable sub-foundation. These piles are connected by a foundation pad upon which the column pier is erected.

Camber

Curvatura

In architecture and building construction, the upward curvature of a joist or joist girder, intended to compensate for deflection due to loading

Camshaft

Árbol de levas

The camshaft is an apparatus often used in piston engines to operate poppet valves. It consists of a cylindrical rod running the length of the cylinder bank with a number of oblong lobes or cams protruding from it, one for each valve. The cams force the valves open by pressing on the valve, or on some intermediate mechanism, as they rotate.

Canal

Canal

Canals are man-made channels for water. There are two main types of canals: irrigation canals, which are used for the delivery of water, and waterways, which are transportation canals used for passage of goods and people, often connected to (and sometimes connecting) existing lakes, rivers, or oceans.

Cant

Peralte

Cant (rail) on a road or railway is the difference in elevation of the two sides of the track to help go around curves.

Cantilever bridge

Puente cantilever

A cantilever bridge is a bridge built using cantilevers: structures that project horizontally into space, supported on only one end. For small footbridges, the cantilevers may be simple beams; however, large cantilever bridges designed to handle road or rail traffic use trusses built from structural steel, or box girders built from prestressed concrete.

Capacitance

Capacitancia

Capacitance is a measure of the amount of electric charge stored (or separated) for a given electric potential.

$$C = \frac{Q}{V}$$

Capillary action, capillarity, or capillary motion

Capilaridad

It is the ability of a substance to draw another substance into it.

Capstan

Cabrestante

A capstan is a rotating machine used to apply force to another element, notably used on board ship and on dock walls, for heaving-in or veering ropes, cables, and hawsers.



Casting

Fundición

Casting is a manufacturing process by which a molten material such as metal or plastic is introduced into a mould, allowed to solidify within the mold, and then ejected or broken out to make a fabricated part. Casting is used for making parts of complex shape that would be difficult or uneconomical to make by other methods, such as cutting from solid material. Casting may be used to form hot, liquid metals or meltable plastics (called thermoplastics), or various materials that cold set after mixing of components such as certain plastic resins such as epoxy, water setting materials such as concrete or plaster, and materials that become liquid or paste when moist such as clay, which when dry enough to be rigid is removed from the mold, further dried, and fired in a kiln.

Catch point

Apartadero

Catch points and trap points are types of turnout which act as railway safety devices. Both work by guiding railway carriages and trucks from a dangerous route onto a separate, safer track. Catch points are used to derail vehicles which are out of control on steep slopes (known as runaways). Trap points are used to protect main railway lines from unauthorised vehicles moving onto them from sidings or branch lines. Either of these track arrangements may lead the vehicles into a sand drag or safety siding, track arrangements which are used to safely stop them after they have left the main tracks.

Catenary

Catenaria

In mathematics, the catenary is the shape of a hanging flexible chain or cable when supported at its ends and acted upon by a uniform gravitational force (its own weight). The chain is steepest near the points of suspension because this part of the chain has the most weight pulling down on it. Toward the bottom, the slope of the chain decreases because the chain is supporting less weight.

Caterpillar tracks

Orugas

They are large (modular) tracks used on tanks, construction equipment and certain other and certain other off-road vehicles.

Unlike the Kégresse tracks which use a flexible belt, most caterpillar tracks are made of a number of rigid units that are joined to each other. The tracks help the vehicle to distribute its weight more evenly over a larger surface area than wheels can. Tracks do this because as the tracked vehicle moves forward the segments are laid out flat on the ground at the front and are picked up again at the back. The segments inbetween the front and the back end carry load too as they are supported by rollers. This keeps it from sinking in areas where wheeled vehicles of the same weight would sink. For instance, ground pressure of a car is equal to the pressure of the air in the tires.

Cavitation

Cavitación

Cavitation is a general term used to describe the behavior of voids or bubbles in a liquid. Cavitation is usually divided into two classes of behavior: inertial (or transient) cavitation and non-inertial cavitation. Inertial cavitation is the process where a void or bubble in a liquid rapidly collapses, producing a shock wave. Such cavitation often occurs in pumps, propellers, impellers, and in the vascular tissues of plants. Non-inertial cavitation is the process where a bubble in a fluid is forced to oscillate in size or shape due to some form of energy input, such as an acoustic field.

Cement portland

Cemento portland

A hydraulic cement produced by pulverising portland-cement clinker and usually containing calcium sulphate.

C

Centripetal force

Fuerza centrípeta

The centripetal force is the external force required to make a body follow a circular path at constant speed. The force is directed inward, toward the center of the circle. Hence it is a force requirement, not a particular kind of force. Any force (gravitational, electromagnetic, etc.) can act as a centripetal force. The centripetal force always acts perpendicular to the direction of motion of the body. In the case of an object that moves along a circular arc with a changing speed, the net force on the body may be decomposed into a perpendicular component that changes the direction of motion (the centripetal force), and a parallel, or tangential component, that changes the speed.

Cohesion or cohesive attraction or cohesive force

Cohesión

In chemistry is the intermolecular attraction between like-molecules. Cohesion explains phenomena such as surface tension.

Chain

Cadena

A chain is a series of connected links, usually made of metal.

Chamber

Esclusa

A canal lock.

Charcoal

Carbonilla

Charcoal is the blackish residue consisting of impure carbon obtained by removing water and other volatile constituents from animal and vegetation substances.

Chimney

Chimenea

A chimney is a system for venting hot flue gases or smoke from a boiler, stove, furnace or fireplace to the outside atmosphere. They are typically almost vertical to ensure that the hot gases flow smoothly, drawing air into the combustion through the chimney effect (also known as the stack effect). The space inside a chimney is called a flue. Chimneys

may be found in buildings, steam locomotives and ships.

Chute

Tolva

An inclined trough or tube for conducting ready-mixed concrete deliveries to the point of placing.

Cinder

Escoria

A cinder is a fragment of cooled pyroclastic material (lava or magma). Cinders are either intrusive igneous (magma cooled inside the earth) or extrusive igneous (lava cooled outside of the earth).

Civil engineering

Ingeniería civil

Civil engineering is a broad field of engineering dealing with the planning, design, construction, maintenance and management of physical infrastructure networks. This includes fixed structures, or public works, as they are related to earth, water, or civilization and their processes. Most civil engineering today deals with power plants, bridges, roads, railways, structures, water supply, irrigation, the natural environment, sewer, flood control, transportation and traffic.

Clamp

Abrazadera

A device used to hold an object in a fixed position.

Clay

Arcilla

Fine grain ground that has high plasticity within certain limits of humidity content and that, dried to the air, acquires an important resistance.

Clinker

Escoria

Clinker is a general name given to waste from industrial processes - particularly those that involve smelting metals or burning fossil fuels. Clinker often forms a loose, black deposit that can consist of coke, coal, slag, charcoal, grit, and other waste materials.





Clutch

Embrague

A clutch is a mechanism for transmitting rotation, which can be engaged and disengaged.

Coal

Hulla

Coal is a fossil fuel formed in swamp ecosystems where plant remains were saved by water and mud from oxidization and biodegradation. Coal is a readily combustible black or brownish-black rock. It is a sedimentary rock, but the harder forms, such as anthracite coal, can be regarded as metamorphic rocks because of later exposure to elevated temperature and pressure. It is composed primarily of carbon along with assorted other elements, including sulfur.

Coalescence

Coalescencia

Coalescence is the process by which two or more droplets or particles merge during contact to form a single daughter droplet (or bubble). It can take place in many processes, ranging from meteorology to astrophysics.

Coating

Tendido

Material applied to a surface by brushing, dipping, mopping, spraying, trowelling, etc., to preserve, protect, decorate, seal or smooth the substrate.

Cobble

Adoquín

Cobbles are partially-rounded rocks used as a construction material for road and street surfacing: see cobblestone.

Cofferdam

Ataguía

A cofferdam is a (usually temporary) barrier constructed to exclude water from an area that is normally submerged. Made commonly of wood, concrete or steel sheet piling, cofferdams are used to allow construction on the foundation of permanent dams, bridges, and similar structures. When the project is completed, the cofferdam may be demolished or removed.

Collier

Minero

A person in the business or occupation of digging or mining coal or making charcoal, or in transporting or dealing in coal.

Colloid

Coloide

Colloid or colloidal dispersion is a heterogeneous mixture that visually appears to be a homogeneous solution. A heterogeneous mixture is a mixture of two phases whereas a solution is one phase. In a colloid, the dispersed phase is made of tiny particles or droplets that are distributed evenly throughout the continuous phase. The size of the dispersed phase particles or droplets is typically between one nanometer and one micrometer.

Compacting

Compactar

The process of pressing down the solid particles in freshly mixed concrete during placement by reduction of voids.

Composting

Compostaje

Composting is also an aerobic process that involves mixing the wastewater solids with sources of carbon such as sawdust, straw or wood chips. In the presence of oxygen, bacteria digest both the wastewater solids and the added carbon source and, in doing so, produce a large amount of heat

Compression

Compresión

The state of stress arising from forces tending to shorten a member. Concrete is resistant to compression. This member is under compression.

Concrete

Hormigón

A composite material that consists of a binding medium within which are embedded particles of a combination of fine aggregate and coarse aggregate.

Concrete mixer

Hormigonera (camión hormigonera)

A machine, usually with a rotating drum in which aggregates, cement and water are mixed for 2 to 3 minutes to make concrete.

Concrete, ready-mixed

Hormigón fresco

Concrete manufactured for delivery to a purchaser in a plastic or unhardened state.

Construcción

Construcción

In project architecture and civil engineering, construction is the building or assembly of any infrastructure on a site or sites. Although this may be thought of as a single activity, in fact construction is a feat of multitasking. Normally the job is managed by the construction manager, supervised by the project manager, design engineer or project architect. While these people work in offices, every construction project requires a large number of laborers, carpenters, and other skilled tradesmen to complete the physical task of construction. For the successful execution of a project effective planning is essential. Those involved with the design and execution of the infrastructure in question must consider the environmental impact of the job, the successful scheduling, budgeting, site safety, availability of materials, logistics, inconvenience to the public caused by construction delays, preparing tender documents, etc.

Contest

Concurso

A contest, is an event in which two or more individuals or teams compete against each other, often for a prize or similar incentive.

Contour line

Línea de nivel

A line on a map through points of equal elevation, often height above sea level.

Contract

Retraer

To grow smaller, shrink. When a hot steel rim cools, it contracts. Concrete and steel will contract at about the same weight.

Conveyor belt

Cinta transportadora

A belt conveyor consists of two pulleys, with a continuous loop of material - the conveyor belt - that rotates about them. The pulleys are powered, moving the belt and the material on the belt forward. Conveyor belts are extensively used to transport industrial and agricultural materials, such as grain, coal, ores, etc. Material flowing over the belt may be weighed in transit using a beltweigher. Belts with regularly spaced partitions, known as elevator belts, are used for transporting loose materials up steep inclines.

Core

Núcleo de presa

A watertight wall built within a dam or embankment as an absolute barrier to the passage of water.

Cornice

Cornisa

The topmost architectural element of a building, projecting forward from the main walls, originally used as a means of directing rainwater away from the building's walls.

Corrosion

Corrosión

A wearing away by chemical action. Concrete protects the steel beams from corrosion. Corrosion will take place if the beam is not protected.

Coulomb

Coulombio

The coulomb (symbol: C) is the SI unit of electric charge. It is named after Charles-Augustin de Coulomb.

Coupling

Enganche (Gancho)

A coupling (or a coupler) is a mechanism for connecting railway cars in a train. The design of these couplings is a standard almost as important as the railway gauge, since flexibility and convenience are maximised if the couplings can work together no matter what order they come in.



Cover

Recubrimiento

In reinforced concrete, the least distance between the surface of the reinforcement and the outer surface of the concrete.

Cracking

Fisuración

Concrete cracks due to tensile stress induced by shrinkage or by applied loading. Engineers are familiar with the tendency of concrete to crack, and where appropriate, special design precautions are taken to ensure crack control. This entails the incorporation of secondary reinforcing, for example deformed steel bars, placed at the desired spacing to limit the crack width to an acceptable level.

Crane

Grúa

A crane is a mechanical lifting device equipped with hoists, wire ropes and sheaves that can be used both to lift and lower materials and to move them horizontally. It uses one or more simple machines to create mechanical advantage and thus move loads beyond the normal capability of a human. Cranes are commonly employed in the transport industry for the loading and unloading of freight; in the construction industry for the movement of heavy equipment materials; and in the manufacturing industry for the assembling of heavy equipment.

Crank

Palanca

In mechanical engineering, a bent portion of an axle, or shaft, or an arm keyed at right angles to the end of a shaft, by which motion is imparted to or received from it.

Crankshaft

Cigüeñal

The crankshaft, sometimes casually abbreviated to crank, is the part of an engine which translates reciprocating linear piston motion into rotation. It typically connects to a flywheel, to reduce the pulsation characteristic of the four-stroke cycle, and sometimes a torsional or vibrational damper at the opposite end, to reduce the torsion vibrations often caused along the length of the crankshaft by the cylinders farthest from the output end acting on the torsional

elasticity of the metal.

Creep

Fluencia

Creep is the term used to describe the permanent movement or deformation of a material in order to relieve stresses within the material. Concrete which is subjected to forces is prone to creep. Creep can sometimes reduce the amount of cracking that occurs in a concrete structure or element, but it also must be controlled. The amount of primary and secondary reinforcing in concrete structures contributes to a reduction in the amount of shrinkage, creep and cracking.

Cross section

Sección transversal

In geometry, a cross section is the intersection of a body in 2-dimensional space with a line, or of a body in 3-dimensional space with a plane, etc. More plainly, when cutting an object into slices one gets many parallel cross sections.

Culvert

Desagüe

A culvert is a conduit used to enclose a flowing body of water. It may be used to allow water to pass underneath a road, railway, or embankment for example. Culverts can be made of many different materials; steel, polyvinyl chloride (PVC) and concrete are the most common.

Curing

Curado

The maintenance of a satisfactory moisture content and temperature in concrete during its early stages so that desired properties may develop. It is the process of keeping concrete under a specific environmental condition until hydration is relatively complete.

Cut and cover

Avance y destroza

Cut-and-cover is a simple method of construction for shallow tunnels where a trench is excavated and roofed over. Strong supporting beams are necessary to avoid the danger of the tunnel collapsing.

Curtain

Pantalla impermeabilizadora

A material that serves to waterproof in dams.

Dam

Presa

A dam is a barrier across flowing water that obstructs, directs or slows is a barrier across flowing water that obstructs, directs or slows lake, reservoir down the flow, often creating a or impoundment. Dams generally serve the primary purpose of retaining water, while other structures such as levees and dikes are used to prevent water flow into specific land regions.

Dam overtopping

Desbordamiento

The flowing over the top of a dam.

Deep foundation

Cimentación profunda

Deep foundations are used to transfer a load from a structure through an upper weak layer of soil to a stronger deeper layer of soil. There are different types of deep foundations including piles, drilled shafts, caissons, piers, and earth stabilized columns. The naming conventions for different types of foundations vary between different engineers. Historically, piles were wood, later steel, reinforced concrete, and pre-tensioned concrete. Sometimes these foundations penetrate bedrock.

Deflection

Flecha

In engineering mechanics, deflection is a term that is used to describe the degree to which a structural element is displaced under a load . The deflection of a member under a load is directly related to the slope of the deflected shape of the member under that load and can calculated by integrating the function that mathematically describes the slope of the member under that load.

Density

Densidad

In physics, density is mass m per unit volume V .

Derivative

Derivada

In calculus, a branch of mathematics, the derivative is a measurement of how a function changes when the values of its inputs change. The derivative of a function at a chosen input value describes the behavior of the function near that input value. For a real-valued function of a single real variable, the derivative at a point equals the slope of the tangent line to the graph of the function at that point. In general, the derivative of a function at a point determines the best linear approximation to the function at that point.

Detritor (sand catcher)

Desarenador

Primary treatment typically includes a sand or grit channel or chamber where the velocity of the incoming wastewater is carefully controlled to allow sand grit and stones to settle, while keeping the majority of the suspended organic material in the water column. This equipment is called a detritor or sand catcher. Sand grit and stones need to be removed early in the process to avoid damage to pumps and other equipment in the remaining treatment stages.

Disinfection

Desinfección

The purpose of disinfection in the treatment of wastewater is to substantially reduce the number of microorganisms in the water to be discharged back into the environment.

Detonation

Detonación

Detonation is a process of supersonic combustion in which a shock wave is propagated forward due to energy release in a reaction zone behind it. It is the more powerful of the two general classes of combustion, the other one being deflagration. In a detonation, the shock compresses the material thus increasing the temperature to the point of ignition. The ignited material burns behind the shock and releases energy that supports the shock propagation.

C

D

Derailment

Descarrilamiento

A derailment is an accident on a railway whereby a train leaves the rails, which can result in damage, injury, and death.

Desilt

Filtrar limos

To remove suspended silt from the water of a stream.

Dike

Dique

A dike (or dyke) is an artificial earthen wall, constructed as a defense or as a boundary. Dikes can be permanent earthworks or emergency constructions (often of sandbags) built hastily in a flood emergency. Where such an emergency bank is an addition atop an existing dike, it is known as a cradge.

Ditch

Cuneta

A ditch is usually defined as a small to moderate depression created to channel water. A ditch can be used for drainage, to drain water from low lying areas, alongside roadways or fields, or to channel water from a more distant source for plant irrigation.

Divisor

Divisor

In mathematics, a divisor of an integer n , also called a factor of n , is an integer which evenly divides n without leaving a remainder.

Dock

Muelle

A dock is an enclosed area of water used for loading, unloading, building or repairing ships. Such a dock may be created by building enclosing harbour walls into an existing natural water space, or by excavation within what would otherwise be dry land.

Dolos

Dolos

A dolos (plural dolosse) is an unusually shaped concrete block weighing up to 20 tons which is used in great numbers to protect harbour walls from the force of the sea. Dolosse are normally made from un-

reinforced concrete, poured into a steel mould. The concrete will sometimes be mixed with small steel fibers, to strengthen it in the absence of reinforcing. Construction is done as close as possible to the area of application as a result of their great weight.

Dome

Cúpula

A dome is a common structural element of architecture that resembles the hollow upper half of a sphere. Domes do not have to be perfectly spherical in cross-section, however; a dome may be a section through an ellipse.

Dot product

Producto escalar

In mathematics, the dot product, also known as the scalar product, is a binary operation which takes two vectors over the real numbers \mathbb{R} and returns a real-valued scalar quantity. It is the standard inner product of the Euclidean space.

Downstream

Aguas abajo

In the direction of flow of a stream.

Dragline excavation systems

Sistemas de dragado

Dragline excavation systems are heavy equipment used in civil engineering and surface mining. In civil engineering the smaller types are used for road and port construction. The larger types are used in strip-mining operations to move overburden above coal, and for tar-sand mining.

Drain

Alcantarilla

A surgical drain is a tube used to remove pus, blood or other fluids from a wound. Drains inserted after surgery do not result in faster wound healing or prevent infection but are sometimes necessary to drain body fluid which may accumulate and in itself become a focus of infection. The routine use drains for surgical procedures is diminishing.

D



Drainage

Drenaje

Drainage is the natural or artificial removal of surface and sub-surface water from a given area. Many agricultural soils need drainage to improve production or to manage water supplies.

Draughtsman

Delineante

A draughtsman or draftsman (the former more often in the UK, the latter more often in the US, and pronounced the same) is a person skilled in drawing, either: drawing for artistic purposes, or technical drawing for practical purposes such as architecture or engineering.

Driller

Taladradora

A drill is a tool with a rotating drill bit used for drilling holes in various materials. Drills are commonly used in woodworking and metalworking.

Drum

Bidón

A drum is a cylindrical container used for shipping bulk goods. Drums can be made of steel, dense paperboard (Commonly called Cardboard drums — See Footnote) or plastics, and are generally used for the transportation of certain dangerous materials or modest quantities of bulk goods.

Drydock

Dique seco

A drydock is a narrow basin or vessel that can be flooded to allow a load to be floated in, then drained to allow that load to come to rest on a dry platform. Drydocks are used for the construction, maintenance, and repair of ships, boats, and other watercraft.

Drylars piles

Pilotes hincados

Also called drilled piers or Cast-in-drilled-hole piles (CIDH piles). Rotary boring techniques offer larger diameter piles than any other piling method and permit pile construction through particularly dense or hard strata. Construction methods depend on the geology of the site. In particular, whether boring is to be undertaken in 'dry' ground conditions or

through water-logged but stable strata - i.e. 'wet boring'.

Dry masonry

Mamostería en seco

The strength of a masonry wall is not entirely dependent on the bond between the building material and the mortar; the friction between the interlocking blocks of masonry is often strong enough to provide a great deal of strength on its own. The blocks sometimes have grooves or other surface features added to enhance this interlocking, and some dry set masonry structures forego mortar all together.

Duct

Conducto

A tube or channel that carries something. A systems of ducts is use for ventilation in most tunnels. Ducts are used in heating, ventilation, and air conditioning (HVAC) to deliver and remove air. These needed airflows include, for example, supply air, return air, and exhaust air. Ducts also deliver, most commonly as part of the supply air, ventilation air. As such, air ducts are one method of ensuring acceptable indoor air quality as well as thermal comfort.

Ductility

Ductilidad

Is the physical property of being capable of sustaining large plastic deformations without fracture (in metals, such as being drawn into a wire). It is characterized by the material flowing under shear stress. It is contrasted with brittleness.

Edger

Cortabordes

A finishing tool used on the edges of fresh concrete to provide a rounded edge.

Effluent

Efluente

Effluent is an outflowing of water from a natural body of water, or from a man-made structure. Effluent in the man-made sense is generally considered to be pollution, such as the outflow from a Sewage treatment facility or the discharge from industrial works. An effluent sump pump, for instance, pumps waste from toilets installed below a main sewage line.



Embankment

Terraplén

A natural or artificial slope which can be made out of earth, stones or bricks, or a combination of these. The purpose of this could be:

To prevent or direct flooding by water - see levee and dyke;

To carry a road (railway, canal, etc.) over an area of low ground - see embankment.

Embankment dam

Presa de materiales sueltos

An Embankment dam is a massive semi-plastic mound of earth and/or rock with a dense, waterproof core. The force of the dammed water pushes the heavy weight of the dam down into the ground, strengthening the dam and preventing it from falling over. Such a dam is composed of fragmented independent material particles. The friction and interaction of particles binds the particles together into a stable mass rather than the use of a cementing substance.

Elastic

Elástico

A material is said to be elastic if it deforms under stress (e.g., external forces), but then returns to its original shape when strainstress is removed.

Elastic energy

Energía elástica

Which causes or is released by the elastic distortion of a solid or a fluid.

Elastic limit

Límite elástico

Is the maximum stress a material can undergo at which all strains are recoverable. (i.e., the material will return to its original size after removal of the load). At stress levels below the elastic limit the material is said to be elastic.

Elasticity

Elasticidad

Is a branch of physics which studies the properties of elastic materials.

Electric charge

Carga eléctrica

Electric charge is a fundamental conserved property of some subatomic particles, which determines their electromagnetic interaction. Electrically charged matter is influenced by, and produces, electromagnetic fields. The interaction between a moving charge and an electromagnetic field is the source of the electromagnetic force, which is one of the four fundamental forces.

Electric current

Corriente eléctrica

Electric current is the flow (movement) of electric charge. The SI unit of electric current is the ampere (A), which is equal to a flow of one coulomb of charge per second.

Electric field

Campo eléctrico

In physics, the space surrounding an electric charge has a property called an electric field. This electric field exerts a force on other electrically charged objects. The electric field is a vector with SI units of newtons per coulomb (N C⁻¹) or, equivalently, volts per meter (V m⁻¹). The direction of the field at a point is defined by the direction of the electric force exerted on a positive test charge placed at that point. The strength of the field is defined by the ratio of the electric force on a charge at a point to the magnitude of the charge placed at that point.

Electrical conductivity

Conductividad eléctrica

Electrical conductivity or specific conductivity is a measure of a material's ability to conduct an electric current. When an electrical potential difference is placed across a conductor, its movable charges flow, giving rise to an electric current. The conductivity σ is defined as the ratio of the current density \mathbf{J} to the electric field strength \mathbf{E} :

$$\mathbf{J} = \sigma \mathbf{E}.$$

Electromagnetic field

Campo electromagnético

The electromagnetic field is a physical field that is produced by electrically charged objects and which affects the behaviour of charged objects in the vicinity of the field.

Electron

Electrón

The electron is a fundamental subatomic particle that carries a negative electric charge.

Energy

Energía

The word energy is widely used in various spheres of life and many meanings are often ascribed to it. In general terms, the word describes natural processes or phenomena that involve a change.

Engineering vehicles, or construction equipment

Maquinaria

(Sometimes referred to as earth movers), are heavy-duty vehicles, specially civil engineering designed for executing and construction tasks.

Epoxi resins

Resina epoxi

Epoxy or polyepoxide is a thermosetting epoxide polymer that cures (polymerizes and crosslinks) when mixed with a catalyzing agent or "hardener". Most common epoxy resins are produced from a reaction between epichlorohydrin and bisphenol-A.

Estuary

Estuario

An estuary is a semi-enclosed coastal body of water with one or more rivers or streams flowing into it, and with a free connection to the open sea. Estuaries are often associated with high rates of biological productivity.

Excavator

Excavadora

An excavator, also called a 360-degree excavator or digger, sometimes abbreviated simply to a 360, is an engineering vehicle consisting of a backhoe and cab mounted on a pivot (a rotating platform, like a Lazy Susan) atop an undercarriage with tracks or wheels. Their design is a natural progression from the steam shovel.

Expansive clay

Arcilla expansiva

Expansive clay is a clay that is prone to large volume changes that are directly related to changes in water content. Mitigation of the effects of expansive clay on structures built in areas with expansive clays is a major challenge in geotechnical engineering.

Explanation

Explicada

It is the surface that results of compacting subgrades before the construction of a pavement, and are sometimes stabilized by the addition of asphalt, soil cement, portland cement or lime. It is the foundation of the pavement structure, on which the subbase is laid. Preparation of the subgrade for construction usually involves digging, in order to remove surface vegetation, topsoil and other unwanted material, and to create space for the upper layer of the pavement. This process is known as subgrade formation or reduction to level.

Falsework

Cimbra

Falsework refers to temporary structures used in construction to support spanning or arched structures in order to hold the component in place until its construction is sufficiently advanced to support itself. Falsework also includes temporary support structures for formwork—panels and accessories used to mold concrete to form a desired shape.

Fault

Falla

Geologic faults, fault lines or simply faults are planar rock fractures, which show evidence of relative movement.

Feedback

Retroalimentación

Feedback is the signal that is looped back to control a system within itself. This loop is called the feedback loop. A control system usually has input and output to the system; when the output of the system is fed back into the system as part of its input, it is called the "feedback."

E

F

Feldspar

Feldespatos

Feldspar is the name of a group of rock-forming minerals which make up as much as 60% of the Earth's crust. Feldspars crystallize from magma in both intrusive and extrusive rocks, and they can also occur as compact minerals, as veins, and are also present in many types of metamorphic rock. Rock formed entirely of plagioclase feldspar (see below) is known as anorthosite. Feldspars are also found in many types of sedimentary rock.

Fence

Cerca, valla

A fence is a freestanding structure designed to restrict or prevent movement across a boundary. It is generally distinguished from a wall by the lightness of its construction: a wall is usually restricted to such barriers made from solid brick or concrete, blocking vision as well as passage (though the definitions overlap somewhat).

Fiberglass

Fibra de vidrio

Fiberglass or glassfibre is material made from extremely fine fibers of glass. It is used as a reinforcing agent for many polymer products; the resulting composite material, properly known as fiber-reinforced polymer (FRP) or glass-reinforced plastic (GRP), is called "fiberglass" in popular usage.

Fibre reinforce concrete

Hormigón reforzado con fibras

Fibre reinforced concrete (Generally Fibre reinforced concrete is called FRC) is a concrete mix that contains short discrete fibres that are uniformly distributed and randomly oriented. Fibres include steel fibres, glass fibres, synthetic fibres and natural fibres. Within these different fibres that character of Fibre Reinforced Concrete changes with varying concrete's, fibre materials, geometries, distribution, orientation and densities.

Field line

Lineas de campo

Field line is a locus that is defined by a vector field and a starting location within the field. A vector field defines a direction at all points in space; a field line may be constructed by tracing a path in the direction of the vector field.

Filter

Filtro

A water filter is a device which removes impurities from water by means of a fine physical barrier, chemical processes and/or biological process. Filters are used to cleanse water for irrigation, drinking water, aquariums, and swimming pools.

Filter beds

Lechos bacterianos

In older plants and plants receiving more variable loads, trickling filter beds are used where the settled sewage liquor is spread onto the surface and of a deep bed made up of coke (carbonised coal), limestone chips or specially fabricated plastic media. Such media must have high surface areas to support the biofilms that form.

Finishing

Acabado

Levelling, smoothing, consolidating and otherwise treating surfaces of fresh or recently placed concrete to produce desired appearance and service.

Fishplate

Placa base

In rail terminology, a fishplate is a metal bar that is bolted to the ends of two rails to join them together in a track. In rail transport modelling, a fishplate is often a small copper or nickel/silver plate which slips onto both rails. The term fishplate, also called baseplate, may also be applied to the special purpose steel plate inserted between the rails and the (wooden) railroad ties. See Methods of fixing rail to sleepers/ties.

F



Flagstone

Laja de piedra

Flagstone is a type of flat stone, usually used for paving slabs, but also for making fences or roofing. It may also be used for making memorials or headstones in a cemetery. This is a sedimentary rock which is cut or split in layers for walkways and patios. It contains feldspar which gives it the blue color. Flagstone is a sandstone which makes the rock essentially quartz. The material that binds flagstone is usually composed of silica, calcium, or iron oxide. The color of the rock usually comes from the cementing material.

Flammable

Inflamable

Capable of burning, especially a liquid. Easily set on fire.

Flange

Ala

A flange is an external or internal rib, or rim (lip), for strength, as the flange of an iron beam or I-beam; or for a guide, as the flange of a train wheel; or for attachment to another object, as the flange on the end of a pipe, steam cylinder, etc, or on the lens mount of a camera.

Float

Esperavel

A tool used in finishing operations to impart a relatively even but still open texture to an unformed fresh concrete surface.

Floating dock

Dique flotante

A floating drydock is a sort of pontoon for dry docking ships that has floodable buoyancy chambers and a "U" shaped cross-section. The walls are used to give the drydock stability when the floor is below the water level. When valves are opened the chambers are filled with water, the dry dock floats lower in the water, allowing a ship to be moved into position inside. When the water is pumped out of the chambers, the drydock rises and the deck is cleared of water, allowing work to proceed on the ship's hull.

Floc

Flóculo

Floc is flake of precipitate that comes out of solution during the process of flocculation.

Flocculation

Floculación

Flocculation refers to a process where a solute comes out of solution in the form of floc or "flakes." The term is also used to refer to the process by which fine particulates are caused to clump together into floc. The floc may then float to the top of the liquid, settle to the bottom of the liquid, or can be readily filtered from the liquid.

Flood

Inundación

A flood is an overflow of water, an expanse of water that submerges land, a is an overflow of water, an expanse of water that submerges land, a deluge.

Flying buttress arch (arc-boutant)

Arbotantes

A buttress that stands apart from the structure that it supports, and is connected to it by an arch.

Flywheel

Volante

A flywheel is a rotating disk used as a storage device for kinetic energy. Flywheels resist changes in their rotational speed, which helps steady the rotation of the shaft when a fluctuating torque is exerted on it by its power source such as a piston-based (reciprocating) engine, or when the load placed on it is intermittent (such as a piston pump).

Footbridge

Pasarela peatonal

A bridge over a road, railway, river etc for pedestrians.

Footpath

Acera

A path for pedestrians.

Force

Fuerza

In physics, force is an influence that may cause a body to accelerate. It may be experienced as a lift, a push, or a pull. The actual . It may be experienced as a lift, a push, or a pull. The actual acceleration of the body is determined by the vector sum of all forces acting on it (known as net force or resultant force). In an extended body, force may also cause rotation or deformation of the body. Rotational effects and deformation are determined respectively by the torques and stresses that the forces create.

Formwork

Encofrado

Total system of support for freshly placed concrete including the mould which contacts the concrete as well as all supporting members, hardware and necessary bracing.

Foundation

Cimentación

A foundation is a structure that transfers loads to the ground. Foundations are generally broken into two categories: shallow foundations and deep foundations.

Fracture

Fractura

A fracture is the (local) separation of a body into two, or more, pieces under the action of stress.

Frequency

Frecuencia

Frequency is the measurement of the number of occurrences of a repeated event per unit of time. It is also defined as the rate of change of phase of a sinusoidal waveform.

Freight

Carga (Mercancía)

Freight is a term used to classify the transportation of cargo and is typically a commercial process. Items are usually organised into various process. Items are usually organised into various shipment categories before they are transported.

Function

Función

The mathematical concept of a function expresses the intuitive idea of deterministic dependence between two quantities, one of which is viewed as primary (the independent variable, argument of the function, or its "input") and the other as secondary (the value of the function, or "output"). A function then is a way to associate a unique output for each input of a specified type.

Gasket

Junta

A gasket is a mechanical seal that fills the space between two objects, generally to prevent leakage between the two objects while under compression.

Gear

Marcha, engranaje

A gear is a wheel with teeth around its circumference, the purpose of the teeth being to mesh with similar teeth on another mechanical device -- possibly another gear wheel -- so that force can be transmitted between the two devices in a direction tangential to their surfaces. A non-toothed wheel can transmit some tangential force but will slip if the force is large; teeth prevent slippage and allow the transmission of large forces.

Gel

Gel

A gel (from the lat. gelu—freezing, cold, ice or gelatus—frozen, immobile) is a colloidal system in which a porous network of interconnected nanoparticles spans the volume of a liquid medium. In general, gels are apparently solid, jelly-like materials. Both by weight and volume, gels are mostly liquid in composition and thus exhibit densities similar to liquids, however have the structural coherence of a solid. An example of a common gel is edible gelatin.

F

G



Geotechnical engineering

Ingeniería geotécnica

Is the branch of civil engineering concerned with the engineering behavior of earth materials. Geotechnical engineering includes investigating existing subsurface conditions and materials; assessing risks posed by site conditions; designing earthworks and structure foundations; and monitoring site conditions, earthwork and foundation construction.

Girger

Jácena, viga longitudinal

A girder is a large support beam used in construction, normally of iron or steel. Girders often have an I beam cross section for strength, but may also have a box shape, Z shape or other forms. Girder is the term used to denote the main horizontal support of a structure which supports smaller beams.

Grade (or gradient)

Grado

Is the pitch of a slope, and is often expressed as a percent tangent, or "rise over run". It is used to express the steepness of slope on a hill, roof, or road, where zero indicates level (with respect to gravity) and increasing numbers correlate to more vertical inclinations.

Grain size

Tamaño de grano

Particle size, also called grain size, refers to the diameter of individual grains of sediment, or the lithified particles in clastic rocks. The term may also be applied to other granular materials. This is different from the crystallite size, which is the size of a single crystal inside the particles or grains. A single grain can be composed of several crystals. Granular material can range from very small colloidal particles, through clay, silt, sand, and gravel, to boulders.

Gravel

Grava

It is rock that is of a certain particle size range. In geology, gravel is any loose rock that is at least two millimeters in its largest dimension (about 1/12 of an inch) and no more than 75 millimeters (about 3 inches). The next smaller size class in geology is sand, which is 0.063 mm to 2 mm in , which

is 0.063 mm to 2 mm in size. The next larger size is cobble, which is 75 (64) millimeters to 256 millimeters (about three to ten inches).

Gravity dam

Presa de gravedad

In a gravity dam, stability is secured by making it of such a size and shape that it will resist overturning, sliding and crushing at the toe. The dam will not overturn provided that the moment around the turning point, caused by the water pressure is smaller than the moment caused by the weight of the dam. This is the case if the resultant force of water pressure and weight falls within the base of the dam. However, in order to prevent tensile stress at the upstream face and excessive compressive stress at the downstream face, the dam cross section is usually designed so that the resultant falls within the middle at all elevations of the cross section (the core). For this type of dam, impervious foundations with high bearing strength are essential.

Grit

Arenilla

The mesh or unit of measure for sandpaper and other polishing materials.

Groin vault

Bóveda de arista

A groin vault or groined vault (also sometimes known as a double barrel vault or cross vault) is a vault produced by the intersection at right angles of two barrel vaults. Sometimes the arches of groin vaults are pointed instead of round.

Grout

Lechada

Grout is a construction material used to embed rebars in masonry walls, connect sections of pre-cast concrete, fill voids, and seal joints (like those between tiles). Grout is generally composed of a mixture of water, cement, sand and sometimes color tint which is applied as a thick liquid and hardens over time, much like mortar.

Guard rail

Quitamiedos

Guard rail, sometimes referred to as guide rail, is a system designed to keep people or vehicles from (in most cases unintentionally) straying into dangerous or off-limits areas. A handrail is less restrictive than a guard rail and provides both support and the protective limitation of a boundary.

Gully

Barranco

A gully is a landform created by running water eroding sharply into soil, typically on a hillside. Gullies resemble large ditches or small valleys, but are metres to tens of metres in height and width.

Gunite

Gunita

Gunite and shotconcrte are two commonly used terms for sprayed concrete. Shotcrete is mortar or concrete conveyed through a hose and pneumatically projected at high velocity onto a surface. Shotcrete undergoes placement and compaction at the same time due to the force with which it is projected from the nozzle. It can be impacted onto any type or shape of surface, including vertical or overhead areas.

Gypsum

Yeso

Gypsum is a very soft mineral composed of calcium sulfate dihydrate, with the chemical formula $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$.

Hammer

Martillo

A hammer is a tool meant to deliver blows to an object. The most common uses are for driving nails, fitting parts, and breaking up objects.

Handrail

Pasamanos

Handrails, banisters, or railings are in place in stairways to provide guidance. They are designed to be grasped by the hand while ascending or descending the stairs.

Hangar

Hangar

A hangar is an enclosed structure designed to hold aircraft in protective storage. Most modern hangars are built of metal, but wood and concrete are other materials commonly used.

Harbor

Puerto

A harbor or harbour (see spelling differences), or haven, is a place where ships may shelter from the weather or are stored. Harbors can be man-made or natural. A man-made harbor will have sea walls or breakwaters and may require dredging. A natural harbor is surrounded on most sides by land. Harbors and ports are often confused. A port is a man-made coastal or riverine facility where boats and ships can load and unload. It may consist of quays, wharfs, jetties, piers and slipways with cranes or ramps. A port may have magazine buildings or warehouses for storage of goods and a transport system, such as railway, road transport or pipeline transport facilities for relaying goods inland.

Hardness

Dureza

Commonly refers to a material's ability to penetrate softer materials.

Harmless

Inócuo

Incapable of causing harm or danger, not intended to harm; inoffensive, safe.

Heat

Calor

In physics, heat, symbolized by Q , is defined as energy in transit.[1] Generally, heat is a form of energy transfer, sometimes called thermal energy, associated with the different motions of atoms, molecules and other particles that comprise matter when it is hot and when it is cold.

G

H



Heat exchanger

Intercambiadores de calor

A heat exchanger is a device built for efficient heat transfer from one fluid to another, whether the fluids are separated by a solid wall so that they never mix, or the fluids are directly contacted. They are widely used in petroleum refineries, chemical plants, petrochemical plants, natural gas processing, refrigeration, power plants, air conditioning and space heating.

Heavy industry

Industria pesada

Heavy industry does not have a single fixed meaning as compared to light industry. In general, it is a popular term used within the name of many Japanese firms, meaning 'construction' for big projects. Example projects include the construction of large buildings, chemical plants, the H-IIA rocket and also includes the production of construction equipment such as cranes and bulldozers. Alternatively, heavy industry projects can be generalized as more capital intensive or as requiring greater or more advanced resources, facilities or management.

Height

Altura

Height is the measurement of distance between a specified point and a corresponding plane of reference. If the distance is occupied by a contiguous form of matter, the measurement is colloquially known as how "tall" the form is.

Hewing

Labrar (tallar)

Hewing is a method of cutting wood

High-speed-train

Tren de alta velocidad

High-speed rail is a type of passenger rail transport that operates significantly faster than the normal speed of rail traffic, although specific definitions in terms of speed vary.

High-strength concrete

Hormigón de alta resistencia

High-strength concrete has a compressive strength generally greater than 6,000 pounds/square inch (40 MPa). High-strength

concrete is made by lowering the water-cement (w/c) ratio to 0.35 or lower. Often silica fume is added to prevent the formation of free calcium hydroxide crystals in the cement matrix, which might reduce the strength at the cement-aggregate bond.

Highway

Autopista

Highway is a term commonly used is to designate major roads intended for travel by the public between important destinations, such as cities. The term highway can also be varied country-to-country, and can be referred to a road, freeway, superhighway, autoroute, autobahn, parkway, expressway, byway, or motorway. Highway designs vary widely. They can include some characteristics of grade separations, multiple lanes of traffic, a median between lanes of opposing traffic, and access control (ramps and grade separation). Highways can also be as simple as a two-lane, shoulderless road.

Hoist

Izar

A hoist is a device used for lifting or lowering a load by means of a drum or lift-wheel around which rope or chain wraps. It may be manually operated, electrically or pneumatically driven and may use chain, fiber or wire rope as its lifting medium. The load is attached to the hoist by means of a lifting hook.

Hinge

Bisagra

A hinge is a mechanical device that connects two solid objects, allowing rotation between them. Hinges may be made of flexible material or of moving components. In biology, many joints function as hinges. They are also known as shingles in old tudorian English (the large hinges on doors).

Hollow core slab

Losa aligerada

A hollow core slab, also known as a voided slab is a prefabricated slab of prestressed concrete typically used in the construction of floors in multi-storey apartment buildings.

Hull

Casco

A hull is the body of a ship or boat. It is a central concept in floating vessels as it provides the buoyancy that keeps the vessel from sinking.

Hydraulics

Hidráulica

Hydraulics is a topic of science and engineering dealing with the mechanical properties of liquids. Hydraulics is part of the more general discipline of fluid power. Fluid mechanics provides the theoretical foundation for hydraulics, which focuses on the engineering uses of fluid properties.

I-beams (also known as double-T esp. in Polish and German)

Vigas en doble T.

Are beams with an I- or H-shaped cross-section. The horizontal elements are flanges, while the vertical element is the web.

Igneous rock

Roca ígnea

Igneous rocks form when rock (magma) cools and solidifies, with or without crystallization, either below the surface as intrusive (plutonic) rocks or on the surface as extrusive (volcanic) rocks. This magma can be derived from partial melts of pre-existing rocks in either the Earth's mantle or crust. Typically, the melting is caused by one or more of the following processes -- an increase in temperature, a decrease in pressure, or a change in composition.

Inch

Pulgada

An inch (plural: inches; symbol or abbreviation: in or, sometimes, " - a double prime) is the name of a unit of length in a number of different systems, including English units, Imperial units, and United States customary units.

Infrastructure

Infraestructura

Infrastructure is generally a set of interconnected structural elements that provide the framework supporting an entire

structure. The term has diverse meanings in different fields, but is perhaps most widely understood to refer to roads, airports, and utilities. These various elements may collectively be termed civil infrastructure, municipal infrastructure, or simply public works, although they may be developed and operated as private-sector or government enterprises.

Inner product space

Producto escalar.

In mathematics, an inner product space is a vector space of arbitrary (possibly infinite) dimension with additional structure, which, among other things, enables generalization of concepts from two or three-dimensional Euclidean geometry. The additional structure associates to each pair of vectors in the space a number which intuitively is a measure of the size of the angle between the vectors. This number is called the inner product (also called a scalar product) of the vectors.

Inorganic

Inorgánico

Traditionally, inorganic compounds are considered to be of mineral, not biological, origin. Complementarily, most organic compounds are traditionally viewed as being of biological origin.

Internal energy

Energía interna

In thermodynamics, the internal energy of a thermodynamic system, or a body with well-defined boundaries, denoted by U , or sometimes E , is the total of the kinetic energy due to the motion of molecules (translational, rotational, vibrational) and the potential energy associated with the vibrational and electric energy of atoms within molecules or crystals. It includes the energy in all the chemical bonds, and the energy of the free, conduction electrons in metals.

Intake

Aspiración

An intake is an air intake for an engine. Because the modern internal combustion engine is in essence a powerful air pump, like the exhaust system on an engine, the intake must be carefully engineered and tuned to provide the greatest efficiency and power.



Integral

Integral

In calculus, the integral of a function is an extension of the concept of a sum. The process of finding integrals is called integration. The process is usually used to find a measure of totality such as area, volume, mass, displacement, etc., when its distribution or rate of change with respect to some other quantity (position, time, etc.) is specified.

Ion

Ión

An ion is an atom or group of atoms which have lost or gained one or more electrons, making them negatively or positively charged. An ion consisting of a single atom is called a monatomic ion, and an ion consisting of a negatively charged ion, which has more electrons in its electron shells than it has protons in its nuclei, is known as an anion due to its attraction to anodes.

Iron

Hierro

Iron (IPA: /'aIə(ɪ)n/) is a chemical element with the symbol Fe (Latin: ferrum) and atomic number 26. Iron is a group 8 and period 4 metal. Iron is a lustrous, silvery soft metal.

Irrigation

Riego

Irrigation is the artificial application of water to the soil. In crop production it is mainly used to replace missing rainfall in periods of drought, but also to protect plants against frost. Additionally irrigation helps to suppress weed growing in rice fields.

Isobar

Isobara

A line drawn on a map or chart connecting places of equal or constant pressure.

Jack

Gato

Crane to pull things.

Jamb

Jamba

Door jamb is the vertical portion of the frame onto which a door is secured. Most types of door fasteners and deadbolts extend into a recess in the doorjamb when engaged, making the strength of the door jambs vitally important to the overall security of the door.

Jet engine

Reactor

A jet engine is an engine that discharges a fast moving jet of fluid to generate thrust in accordance with Newton's third law of motion. This broad definition of jet engines includes turbojets, turbofans, rockets, ramjets and water jets, but in common usage, the term generally refers to a gas turbine Brayton cycle engine used to produce a jet of high speed exhaust gases for special propulsive purposes. Jet engines are so familiar to the modern world that gas turbines are sometimes mistakenly referred to as a particular application of a jet engine, rather than the other way around.

Jetty

Espigón

The term jetty, derived from the French jetée, and therefore signifying something thrown out, is applied to a variety of structures employed in river, dock, and maritime works which are generally carried out in pairs from river banks, or in continuation of river channels at their outlets into deep water; or out into docks, and outside their entrances; or for forming basins along the sea-coast for ports in tideless seas. The forms and construction of these jetties are as varied as their uses; for though they invariably extend out into water, and serve either for directing a current or for accommodating vessels, they are sometimes formed of high open timber-work, sometimes of low solid projections, and occasionally only differ from breakwaters in their object.

Joint

Junta

A physical separation in concrete, whether precast or cast-in-place, including cracks if intentionally made to occur at specified locations; also the region where structural members intersect, such as a beam-column joint.

I

J

Joule

Julio

The joule (symbol: J) is the SI unit of energy. One joule is the work done, or energy expended, by a force of one newton moving an object one meter along the direction of the force. This quantity is also denoted as a Newton-meter with the symbol N·m. Note that torque also has the same units as work, but the quantities are not identical. In elementary units:

$$1 \text{ J} = 1 \text{ kg} \cdot \frac{\text{m}^2}{\text{s}^2}$$

Keystone

Dovela de llave

In architecture, a keystone is the stone at the top of a masonry arch. It is popularly but falsely believed that the keystone is more important structurally than any of the other wedge-shaped stones (voussoirs) that make up the arch. In fact, removal of any of the voussoirs would cause the arch to collapse. The keystone is often larger than the other voussoirs, but this is purely for aesthetic purposes.

Kiln

Horno

Kilns are a thermally insulated chambers, or ovens, in which a controlled temperature regimes are produced. They are used to harden, burn or dry materials.

Kinetic energy

Energía cinética

The kinetic energy of an object is the extra energy which it possesses due to its motion. It is defined as the work needed to accelerate a body of a given mass from rest to its current velocity. Having gained this energy during its acceleration, the body maintains this kinetic energy unless its speed changes. Negative work of the same magnitude would be required to return the body to a state of rest from that velocity.

King post

Pendolón

A king post (or king-post) is a central vertical supporting post extending vertically from a crossbeam to the apex of a triangular truss. The king post connects the apex of the truss with its base, holding up the tie beam at the

base of the truss. A similar structure may be used to construct a simple bridge. The deck of the bridge is supported by a king post, which is held up by a triangular truss.

Laitance

Lechada

Weak material, consisting principally of lime, that is formed on the surface of concrete, especially when excess water is mixed with the cement.

Landfill

Vertedero

A landfill, also known as a dump (and historically as a midden), is a site for the disposal of waste materials by burial and is the oldest form of waste treatment. Historically, landfills have been the most common methods of organized waste disposal and remain so in many places around the world.

Lattice bridge

Puente de celosía

A lattice bridge is a form of truss bridge that uses a large number of small and closely spaced diagonal elements that form a lattice.

Lattice girder

Entramado

A lattice girder is a girder where the flanges are connected by a lattice web. This type of design has been supplanted in modern construction with welded or bolted plate girders, which use more material but have lower fabrication costs. The lattice girder was used prior to the development of larger rolled steel plates. The term is also sometimes used to refer to a structural member commonly made using a combination of structural sections connected with diagonal lacing. This member is more correctly referred to as a laced strut or laced tie, as it normally resists axial compression (strut) or axial tension (tie) - the lattice girder, like any girder, primarily resists bending. The component sections may typically include metal beams, channel and angle sections, with the lacing elements either metal plate strips, or angle sections. The lacing elements are typically attached using either hot rivets or threaded locator bolts. As with lattice girders, laced struts and ties have generally been supplanted by hollow box sections, which are more economic with modern technology.

J

K

L



Layer

Tongada

The concrete placed between two consecutive horizontal construction joints, usually consisting of several lifts or courses.

Leachate

Lixiviado

Leachate is the liquid produced when water percolates through any permeable material. It can contain either dissolved or suspended material, or usually both. This liquid is most commonly found in association with landfills where result of rain percolating through the waste and reacting with the products of decomposition, chemicals and other materials in the waste to produce the leachate. If the landfill has no leachate collection system, the leachate can enter groundwater, and this can pose environmental or health problems as a result. Typically, landfill leachate is anoxic, acidic, rich in organic acid groups, sulfate ions and with high concentrations of common metal ions especially iron. Leachate has a very distinctive smell which is not easily forgotten.

Length

Longitud

Length is the long dimension of any object. The length of a thing is the distance between its ends, its linear extent as measured from end to end. This may be distinguished from height, which is vertical extent, and width or breadth, which are the distance from side to side, measuring across the object at right angles to the length. In the physical sciences and engineering, the word "length" is typically used synonymously with "distance", with symbol *l* or *L*.

Lining

Revestimiento

A layer of clay puddle covering the sides of a canal, making them watertight.

Lifting hook

Arnés

A lifting hook is a device for grabbing and lifting loads by means of a device such as a hoist or crane. Lifting hooks are usually equipped with a safety latch to prevent the disengagement of the lifting wire rope sling, chain or rope to which the load is attached.

Lime

Cal

Lime is a general term for various naturally occurring minerals and materials derived from them, in which carbonates, oxides and hydroxides of calcium predominate.

Lime mortar

Mortero limoso

Lime mortar is a type of mortar. It was used in the construction of the vast majority of brick and stone buildings worldwide from ancient times until the widespread adoption of Portland cement in the late nineteenth century. It is still used today, for the repair of such buildings and occasionally for new construction.

Lining

Recubrimiento

The re-covering of the tunnels.

Lintel

Dintel

Lintel or Header is a horizontal beam used in the construction of buildings, and is a major architectural contribution of ancient Greece. It usually supports the masonry above a window or door opening.

Lock

Esclusa

On waterways (navigable rivers and canals) a lock is a particular type of device for raising or lowering boats between stretches of water at different levels. The distinguishing feature of a lock is a fixed chamber whose water level can be varied; whereas in a boat lift or canal inclined plane, it is the chamber itself which moves. Locks are used to make a river more easily navigable, or to allow a canal to take a reasonably direct line across country that is not level.

Locomotive

Locomotora

A locomotive is a railway vehicle that provides the motive power for a train.

Longshore drift

Transporte litoral

In geography, longshore drift (LSD) (shore drift or littoral drift) is a process by which sediments move along a beach shore.

Lumber

Madera

Lumber or Timber is a term used to describe wood, either standing or that has been processed for use—from the time trees are felled, to its end product as a material suitable for industrial use—as structural material for construction or wood pulp for paper production.

Macadam

Macadam

Macadam is a type of road construction pioneered by the Scotsman John Loudon McAdam in around 1820. It consisted of creating three layers of stones laid on a crowned subgrade with side ditches for drainage. The first two layers consisted of angular hand-broken aggregate, maximum size 3 inches (75 mm), to a total depth of about 8 inches (200 mm). The third layer was about 2 inches (50 mm) thick with a maximum aggregate size of 1 inch (25 mm). Each layer would be compacted with a heavy roller, causing the angular stones to lock together with their neighbours.

Magma

Magma

Magma is molten rock located beneath the surface of the Earth (or any other terrestrial planet), and which often collects in a magma chamber. Magma may contain suspended crystals and gas bubbles.

Magnetic field

Campo magnético

In physics, a magnetic field is a pseudo-vector field generated by moving electric charge. A magnetic field can also be found in the vicinity of ferromagnetic materials such as iron.

Manhole

Pozo de registro (boca de alcantarilla)

A manhole (alternatively maintenance hole or access chamber) is the top opening to an underground utility vault used to house an access point for making connections or performing maintenance on underground and buried public utility and other services including sewers, telephone, electricity, storm drains and gas. It is protected by a manhole cover, a (usually metal) plug designed to prevent accidental or unauthorized access to the manhole.

Manhole cover

Tapa de alcantarilla

A manhole cover is a removable plate forming the lid over the opening of a manhole, to prevent someone from falling in and to keep unauthorized persons out.

Maintenance of way

Mantenimiento de vía

Maintenance of way (often abbreviated as M of Way, MOW or MW) refers to the maintenance of railroad rights of way. It can include procedures from the initial grading of the right of way to its general upkeep and eventual dismantling. See also Track Maintenance and Right-of-way (railroad).

Mantle

Paramento

The outer covering of a wall.

Molding

Moldear

Molding is the process of manufacturing by shaping pliable raw material using a rigid frame or model called a mold.

Malleability

Maleabilidad

Is a physical property of metals and metalloids, or generally of any kind of matter. A malleable metal can easily be deformed, especially by hammering or rolling, without cracking. Malleability is an important issue in, for example, stamping and form pressing materials such as metals and plastics.

L

M

Masonry

Mampostería (Albañilería)

Is the building of structures from individual units laid in and bound together by mortar. The common materials of masonry construction are brick, stone such as marble, granite, travertine, limestone; concrete block, glass block, and tile . Masonry is generally a highly durable form of construction. However, the materials used, the quality of the mortar and workmanship, and the pattern the units are put in can strongly affect the durability of the overall masonry construction.

Mass

Masa

Mass is the property of a physical object that quantifies the amount of matter and energy it is equivalent to. Mass is a central concept of classical mechanics and related subjects, and there are several forms of mass within the framework of relativistic kinematics.

Medium(optical)

Medio

An optical medium is material through which electromagnetic waves propagate. It is a form of transmission medium. The permittivity and permeability of the medium define how electromagnetic waves propagate in it.

Mechanical treatment

Desbaste

In the mechanical treatment, the influx (influent) of sewage water is strained to remove all large objects that are deposited in the sewer system, such as rags, sticks, condoms, sanitary towels (sanitary napkins) or tampons, cans, fruit, etc. This is most commonly done with a manual or automated mechanically raked screen. This type of waste is removed because it can damage or clog the equipment in the sewage treatment plant.

Melt

Fundir

In physics, melting is the process of heating a solid substance to a point (called the melting point) where it turns into a liquid. An object that has melted is molten.

Melting point

Punto de fusión

The melting point of a crystalline solid is the temperature range at which it changes state from solid to liquid. Although the phrase would suggest a specific temperature and is commonly and incorrectly used as such in most textbooks and literature, most crystalline compounds actually melt over a range of a few degrees or less. At the melting point the solid and liquid phase exist in equilibrium. When considered as the temperature of the reverse change from liquid to solid, it is referred to as the freezing point.

Metal

Metal

In chemistry, a metal (Greek: Metallon) is an element that readily loses electrons to form positive ions (cations) and has metallic bonds between metal atoms. Metals form ionic bonds with non-metals.

Metamorphic rock

Roca metamórfica

Metamorphic rock is the result of the transformation of a pre-existing rock type, the protolith, in a process called metamorphism, which means "change in form". The protolith is subjected to heat (greater than 150 degrees Celsius) and extreme pressure causing profound physical and/or chemical change. The protolith may be sedimentary rock, igneous rock or another older metamorphic rock.

Micropile

Micropilote

Micropiles, also called mini piles, are used for underpinning. Micropiles are normally made of steel with diameters of 60 to 200 mm. Installation of micropiles can be achieved using drilling, impact driving, jacking, vibrating or screwing machinery.

Mill

Fábrica

Mill (factory) is a place of business for making articles of manufacture. The term mill was once in common use for a factory because many factories in the early stages of the Industrial Revolution were powered by a watermill, but nowadays it is only used in a few specific contexts.



Mining

Minería

Mining is the extraction of valuable minerals or other geological materials from the earth, usually (but not always) from an ore body, vein, or (coal) seam. Materials recovered by mining include bauxite, coal, copper, gold, silver, diamonds, iron, precious metals, lead, limestone, nickel, phosphate, oil shale, rock salt, tin, uranium, and molybdenum.

Mixer

Mezclador

A machine used for blending the constituents of concrete, grout, mortar, cement paste or other mixture.

Mobile crane

Grúa móvil

The most basic type of mobile crane consists of a steel truss or telescopic boom mounted on a mobile platform, which may be rail, wheeled (including "truck" carriers) or caterpillar tracks. The boom is hinged at the bottom, and can be raised and lowered by cables or by hydraulic cylinders. A hook is suspended from the top of the boom by wire rope and sheaves. The wire ropes are operated by whatever prime movers the designers have available, operating through a variety of transmissions.

Moisture content

Contenido de humedad

The ratio, expressed as a percentage of the weight of water in a given soil mass to the weight of the particles.

Mohr's circle

Círculo de Mohr

A graphical representation of any 2-D stress state. Mohr's circle may also be applied to three-dimensional stress. In this case, the diagram has three circles, two within a third. Engineers use Mohr's circle to find the planes of maximum normal and shear stresses, as well as the stresses on known weak planes.

Mole

Máquinas topo

A tunneling machine that can bore through hard rock.

Molecule

Molécula

In chemistry, a molecule is defined as a sufficiently stable electrically neutral group of at least two atoms in a definite arrangement held together by strong chemical bonds.

Moment of inertia

Momento de inercia

Also called mass moment of inertia and, sometimes, the angular mass, (SI units kg m^2 , Former British units slug ft^2)) quantifies the rotational inertia of a rigid body, i.e. its inertia with respect to rotational motion, in a manner somewhat analogous to how mass quantifies the inertia of a body with respect to translational motion. The symbols I and sometimes J are usually used to refer to the moment of inertia.

Moor

Atracar, amarrar

A vessel is said to be moored when it is fastened to a fixed object such as a pier or quay, or to a floating object such as an anchor buoy. Mooring is often accomplished using thick ropes called mooring lines or hawsers. The lines are fixed to deck fittings on the vessel at one end, and fittings on the shore, such as bollards, rings, or cleats, on the other end.

Mortar

Mortero

Mortar is a material used in masonry to fill the gaps between blocks in construction. The blocks may be stone, brick, breeze blocks (cinder blocks), etc. Mortar is a mixture of sand, a binder such as cement or lime, and water and is applied as a paste which then sets hard. Mortar can also be used to fix, or point masonry when the original mortar has washed away.

Natural resources

Recursos naturales

Natural resources are naturally occurring substances that are considered valuable in their relatively unmodified (natural) form. A natural resource's value rests in the amount of the material available and the demand for the certain material.

M

N

Nail

Clavo

In engineering, woodworking and construction, a nail is a pin-shaped, sharp object of hard metal, typically steel, used as a fastener. Nails for specialised purposes may also be made of stainless steel, brass or aluminium.

Neutron

Neutrón

In physics, the neutron is a subatomic particle with no net electric charge.

Newton

Newton

The newton (symbol: N) is the SI unit of force. A newton is the amount of force required to accelerate a body with a mass of one kilogram at a rate of one meter per second squared.

A newton in elementary units:

$$1 \text{ N} = 1 \frac{\text{kg} \cdot \text{m}}{\text{s}^2}$$

Nodule

Nódulo

A nodule describes an aggregation of similar cells or particles in a number of scientific fields.

Normal stress

Esfuerzo normal

Is stress that acts perpendicular to the face of the material. It can act in compression or in tension.

Nozzle

Boquilla, tobera

A nozzle is a mechanical device designed to control the characteristics of a fluid flow as it exits from an enclosed chamber into some medium. A nozzle is often a pipe or tube of varying cross sectional area, and it can be used to direct or modify the flow of a fluid (liquid or gas). Nozzles are frequently used to control the rate of flow, speed, direction, mass, and/or the pressure of the stream that emerges from them.

Nuclear reactor

Reactor nuclear

A nuclear reactor is a device in which nuclear chain reactions are initiated, controlled, and sustained at a steady rate, as opposed to a nuclear bomb, in which the chain reaction occurs in a fraction of a second and is uncontrolled.

Nut

Tuerca

A piece of metal with a hole with internal screw thread.

Ore

Mineral

An ore is a volume of rock containing components or minerals in a mode of occurrence that renders it valuable for mining. An ore must contain materials that are valuable, in concentrations that can be profitably mined, transported, milled, and processed and able to be extracted from waste rock by mineral processing techniques.

Organic

Orgánico

Organic compounds contain at least one C-H bond.

Outfall

Emisario submarino

A wastewater treatment system discharges treated effluent to a water body from an outfall. An ocean outfall may be conveyed several miles offshore, to discharge by nozzles at the end of a spreader or T-shaped structure. Outfalls may also be constructed as an outfall tunnels or subsea tunnels and discharge effluent to the ocean via one or more risers with nozzles.

Parapet

Pretil

A parapet consists of a barrier at the edge of a structure employed to prevent persons or vehicles from falling over the edge.

N

O

P

Pavement or road surface

Pavimento o superficie de rodadura

Pavement (American English) or road surface (British English) is the durable surface material laid down on an area intended to sustain traffic (vehicular or foot traffic). Such surfaces are frequently marked to guide traffic. The most common modern paving methods are asphalt and concrete. In the past, brick was extensively used, as was metaling. Today, permeable paving methods are beginning to be used more for low-impact roadways and walkways.

Permittivity

Permisividad

Permittivity is a physical quantity that describes how an electric field affects and is affected by a dielectric medium, and is determined by the ability of a material to polarize in response to the field, and thereby reduce the field inside the material. Thus, permittivity relates to a material's ability to transmit (or "permit") an electric field.

Permeability

Permeabilidad

Permeability, permeable and semipermeable have several meanings:

Permeability (electromagnetism), in electromagnetism, is the degree of magnetization of a material in response to a magnetic field.

Permeability (fluid), in earth sciences, is a measure of the ability of a material to transmit fluids.

Semipermeable membrane, a membrane which will allow certain molecules or ions to pass through it by diffusion.

Permeability tensor, permeability in an anisotropic medium.

Vascular permeability, the movement of fluids and molecules between the vascular and extravascular compartments.

Phase

Fase

In the physical sciences, a phase is a set of states of a macroscopic physical system that have relatively uniform chemical composition and physical properties (i.e. density, crystal structure, index of refraction, and so forth).

Pier

Pilar

In architecture, a pier is an upright support for a superstructure, such as an arch or bridge. The cross section of the pier is generally square, or rectangular, although other shapes are also possible. In medieval architecture, massive circular supports called drum piers, cruciform (cross-shaped), and composite piers are common.

Pile

Pilote

A pile is a type of deep foundation. Pile, post of timber, steel, or concrete used to support a structure. Vertical piles, or bearing piles, the most common form, are generally needed for the foundations of bridges, docks, piers, and buildings. Slender tree trunks, roughly trimmed and about 10 in. (25.4 cm) thick at the butt, are used in foundations for houses. Wooden piles last a very long time underwater but are subject to decay when buried underground. They are shaped for driving and sometimes have a pointed iron shoe set on the sharp end, with the butt end encircled by an iron band to prevent brooming under the blows of the pile driver.

Piled wall

Pantalla de pilotes

These methods of retaining wall construction employ bored piling techniques - normally CFA or rotary. They provide special advantages where available working space dictates that basement excavation faces be vertical. Both methods offer technically effective and cost efficient temporary or permanent means of retaining the sides of bulk excavations even in water bearing strata.

Pinion

Piñón

A pinion is usually the smallest gear in a gear drive train. In many cases, such as remote controlled toys, the pinion is also the drive gear.



Pipe

Tubería

Pipe is a tube or hollow cylinder for the conveyance of fluid. The terms 'pipe' and 'tubing' are interchangeable. 'Pipe' is generally specified by the internal diameter (ID) whereas 'tube' is usually defined by the outside diameter (OD) but may be specified by any combination of dimensions (OD, ID, wall thickness), depending upon which are considered the most important to the designer. 'Tube' is often made to custom sizes and may often have more specific sizes and tolerances than pipe. The term 'tubing' is more widely used in the USA and 'pipe' elsewhere in the world.

Piston

Piston

In general, a piston is a lubricated sliding shaft that fits tightly inside the opening of a cylinder. Its purpose is to change the volume enclosed by the cylinder, to exert a force on a fluid inside the cylinder, to cover and uncover ports, or some combination of these. A rubber seal is sometimes used to keep the lubricate within the shaft. Due to the constant motion of the machine this seal wears quickly and should be replaced with every servicing. If the seal should break during usage there can be disastrous long lasting consequences for the machine.

Plasticity

Plasticidad

Is a property of a material to undergo a non-reversible change of shape in response to an applied force. Plastic deformation occurs under shear stress, as opposed to brittle fractures which occur under normal stress.

Plane strain

Deformación plana

It is a strain state in which the strains associated with length, i.e the normal strain ϵ_{33} and the shear strains ϵ_{13} and ϵ_{23} (if the length is the 3-direction) are constrained by nearby material and are small compared to the cross-sectional strains.

Plane stress

Tensión plana

Is a two-dimensional state of stress. This 2-D state models well the state of stresses in a flat, thin plate loaded in the plane of the plate.

Plaster (of Paris)

Escayola

Plaster of Paris, or simply plaster, is a type of building material based on calcium sulfate hemihydrate (gypsum), nominally $\text{CaSO}_4 \cdot 0.5\text{H}_2\text{O}$. It is created by heating gypsum to about 150 °C.

Plate tectonics

Placas tectónicas

Plate tectonics is a theory of geology that has been developed to explain the observed evidence for large scale motions of the Earth's lithosphere. The theory encompassed and superseded the older theory of continental drift from the first half of the 20th century and the concept of seafloor spreading developed during the 1960s.

Plug

Enchufe

An electrical connector.

Plumbing

Cañerías

Plumbing, from the Latin for lead (plumbum), is the skilled trade of working with pipes, tubing and plumbing fixtures for potable water systems and the drainage of waste.

Plunge pool

Cuenca amortiguador

A deep hollow constructed to collect falling water from the chute.

Polar moment of inertia

Momento de inercia polar

Is a measure of an object's ability to resist torsion.

Polish

Pulir

The process of creating a smooth and shiny surface by using rubbing or a chemical action.



Pontoon

Pontón

A pontoon is a flat-bottomed boat or the floats used to support a structure on water. It may be simply constructed from closed cylinders such as pipes or barrels or fabricated as boxes from metal or concrete. These may be used to support a simple platform, creating a raft. A raft supporting a house-like structure is one form of houseboat.

Port

Puerto

A port is a facility for receiving ships and transferring cargo to and from them. They are usually to and from them. They are usually situated at the edge of an lake, or river, sea or ocean.

Potencial energy

Energía potencial

Potential energy is also known as the work done by a certain force (such as gravitational force or Coulomb force) when the relative positions of objects are changed within a physical system.

Pozzolana

Puzolana

Pozzolana, also known as pozzolanic ash, is a fine, sandy volcanic ash, originally discovered and dug in Italy at Pozzuoli in the region around Vesuvius, but later at a number of other sites. Finely ground and mixed with lime it creates a hydraulic cement and can be used to make a strong mortar that will also set under water. It transformed the possibilities for making concrete structures, although it took the Romans some time to discover its full potential.

Pressure (symbol: p)

Presión

Is the force per unit area applied on a surface in a direction. Pressure is a scalar, and has SI units of pascals, $1 \text{ Pa} = 1 \text{ N/m}^2$.

Prestressed concrete

Hormigón pretensado

Invented by Frenchman Eugène Freyssinet in 1928, is a method for overcoming concrete's natural weakness in tension. It can be used to produce beams, floors or bridges with a

longer span than is practical with ordinary reinforced concrete. Prestressing tendons (generally of high tensile steel cable or rods) are used to provide a clamping load which produces a compressive stress that offsets the tensile stress that the concrete compression member would otherwise experience due to a bending load.

Profile

Canto

It is the shape of the cross-section of a beam.

Propeller

Hélice

A propeller is a device which transmits power by converting rotational motion into thrust for propulsion of a vehicle such as an aircraft, ship, or submarine through a fluid such as water or air, by rotating two or more twisted blades about a central shaft, in a manner analogous to rotating a screw through a solid.

Proton

Protón

In physics, the proton is a subatomic particle with an electric charge of one positive.

Pulley

Polea

A pulley is a wheel with a groove along its edge, also called a sheave, for holding a rope or cable. Pulleys are usually used in sets designed to reduce the amount of force needed to lift a load.

Pump

Bomba

A pump is a device used to move liquids or slurries. A pump moves liquids from lower pressure to higher pressure, and overcomes this difference in pressure by adding energy to the system (such as a water system). A gas pump is generally called a compressor, except in very low pressure-rise applications, such as in heating, ventilating, and air-conditioning, the equipment is known as fans or blowers.

Quarry

Cantera

A quarry is a type of open-pit mine from which rock or minerals are extracted. Quarries are generally used for extracting building materials, such as dimension stone. Quarries are usually shallower than other types of open-pit mines.

Quarried rock

Roca de cantera

Large rock or stone dug from an open excavation.

Raft

Balsa

A raft is any flat floating structure for travel over water. It is the most basic of boat design, characterized by the absence of a hull. Instead, rafts are kept afloat using any combination of buoyant materials such as wood, sealed barrels, or inflated air chambers.

Rail gauge

Ancho de vía

Rail gauge is the distance between the inner sides of the two parallel rails that make up a railway track. Sixty percent of the world's railways use a gauge of 4 ft 8½ in (1435 mm), which is known as the standard or international gauge.

Rail grinder

Esmerilladora de carril

A railgrinder (also spelled rail grinder) is a maintenance of way railway car that is used to remove irregularities from rail tracks and restore their profile, in order to extend the life of the rails before they need to be replaced.

Rail spike

Tirafondo

In rail terminology, a spike is a large nail with an offset head that is used to secure rails or fishplates (or baseplates) to ties in the track. Spikes are driven into wooden ties either by hammering them with a spike hammer by hand, or in an automated fashion with a spiker. Many railways use large wood screws, also called lag screws, to fasten the fishplates (or baseplates) to the railroad ties.

Rail transport

Transporte ferroviario

Is the transport of passengers and goods by means of wheeled by means of wheeled railroads (sometimes known as railways) vehicles specially designed to run along).

Railroad crane

Grúa sobre carriles

A railroad crane is a crane with flanged wheels, used by railroads. The simplest form is just a crane mounted on a railroad car or on a flatcar. More capable devices are purpose-built. Different types of crane are used for maintenance work, recovery operations and freight loading in goods yards.

Railroad switch

Agujas

A railroad switch is a mechanical installation enabling trains to be guided from one track to another. In the UK and Commonwealth countries, railroad switches are known as (sets of) points. In technical usage switches are also called turnouts.

Railroad tie

Traviesa

A railroad tie, cross tie, or sleeper is a rectangular object used as a base for railroad tracks. Sleepers . Sleepers are members generally laid transverse to the rails, on which the rails are supported and fixed, to transfer gauge the loads from rails to the ballast and sub grade below, and to hold the rails to the correct gauge.

Rail siding

Apartadero

A siding, in general rail terminology, refers to a section of track distinct from a through route such as a main line or branch line or spur. It may connect to through trackage or to other sidings at one or both ends. The distinction between sidings and other types of trackage is somewhat vague, but in general "siding" denotes an auxiliary and often unspecific usage.

Q

R

Rail tracks

Carriles

Rail tracks are used on railways (or railroads), which, together with railroad switches (or points), guide trains without the need for steering. Tracks consist of two parallel steel rails, which are laid upon sleepers (or cross railroad to form the ballastties) that are embedded in track.

Railway signalling

Señalización ferroviaria

Railway signalling is a system used to control railway traffic safely, essentially to prevent trains from colliding.

Ratchet

Trinquete

In mechanical engineering a ratchet is a device used to restrict motion in one direction. This sort of behaviour is useful in many areas, such as in turnstile, spanners (where rotation in confined surfaces can be achieved easily), winders, jacks, hoists and others.

Real number

Número real

In mathematics, the real numbers may be described informally as numbers that can be given by an infinite decimal representation.

Rebar

Mallazo

Rebar, a portmanteau for reinforcing bar, is common steel bar, an important component of reinforced concrete and reinforced masonry structures. It is usually formed from carbon steel, and is given ridges for better frictional adhesion to the concrete.

Refraction

Refracción

Refraction is the change in direction of a wave due to a change in its speed. This is most commonly seen when a wave passes from one medium to another.

Refractive index

Índice de refracción

The refractive index (or index of refraction) of a medium is a measure for how much the speed of light (or other waves such as sound

waves) is reduced inside the medium.

Regular concrete

Hormigón regular

Regular concrete is the lay term describing concrete that is produced by following the mixing instructions that are commonly published on packets of cement, typically using sand or other common material as the aggregate, and often mixed in improvised containers. This concrete can be produced to yield a varying strength from about 10 MPa to about 40 MPa, depending on the purpose, ranging from blinding to structural concrete respectively. Many types of pre-mixed concrete are available which include powdered cement mixed with an aggregate, needing only water.

Reinforced concrete

Hormigón armado

Also called ferroconcrete in some countries, is concrete in which in which reinforcement bars ("rebars") or fibers have been incorporated to strengthen a material that would otherwise be brittle. In industrialized countries, nearly all concrete used in construction is reinforced concrete.

Residual stresses

Tensiones residuales

They are stresses that remain after the original cause of the stresses has been removed. Residual stresses occur for a variety of reasons, including inelastic deformations and heat treatment. Heat from welding may cause localized expansion.

Resilience

Resiliencia

In physics and engineering, resilience is defined as the capacity of a material to absorb energy when it is deformed elastically and then, upon unloading to have this energy recovered. In other words, it is the maximum energy per volume that can be elastically stored. It is represented by the area under the curve in the elastic region in the Stress-Strain diagram.

Reservoir

Embalse

A place where water is collected and kept in quantity for use when wanted.

R



Resultant force

Fuerza resultante

A net force (also known as a resultant force) is a vector produced when two or more forces act upon a single object. It is calculated by adding the force vectors acting upon the object. A net force can also be defined as the overall force acting on an object, when all the individual forces acting on the object are added together.

Retaining wall

Muro de contención

A retaining wall is a structure that holds back earth from a building or other structure. Retaining walls stabilize soil and/or rock from downslope movement or erosion and provide support for vertical or near-vertical grade changes. Cofferdams and bulkheads, structures that hold back water, are sometimes also considered retaining walls. Retaining walls are generally made of masonry, stone, brick, concrete, vinyl, steel or timber.

Return

Rendimiento

Return is a financial term that refers to the profit or loss derived from an investment.

Rib

Nervio

In architecture, a relatively slender, molded masonry arch projecting from a surface. In Gothic architecture, the ribs form the framework of the vaulting. Diagonal ribs form the X of a groin vault.

River bed

Lecho fluvial

The channel occupied or formerly occupied by a river.

Rib vault

Bóveda de crucería

A rib vault or ribbed vault is any vault reinforced by masonry ribs. A rib vault may be a quadripartite rib vault (which is divided into four sections by two diagonal ribs) and a sexpartite rib vault (a rib vault whose surface is divided into six sections by three ribs).

Riser

Contrahuella

In buildings, the stair riser is a component of steps in a stairway.

Road

Carretera

A road is an identifiable route, way or path between two or more places. Roads Roads travel, or otherwise prepared to allow easy pavedare typically smoothed.

Roller-compacted concrete

Hormigón compactado con rodillo

Roller-compacted concrete, sometimes called rollcrete, is a low-cement-content stiff concrete placed using techniques borrowed from earthmoving and paving work. The concrete is placed on the surface to be covered, and is compacted in place using large heavy rollers typically used in earthwork. The concrete mix achieves a high density and cures over time into a strong monolithic block. Roller-compacted concrete is typically used for concrete pavement, but has also been used to build concrete dams, as the low cement content causes less heat to be generated while curing than typical for conventionally placed massive concrete pours.

Roof

Tejado

A roof is the uppermost, covering, part of a building. The purpose of the roof is to protect both the building itself and its living or material contents from the effects of weather. A roof protects primarily against rain.

Rope

Cuerda

A rope is a length of fibers, twisted or braided together to improve strength for pulling and connecting.

Rudder

Timón

A rudder is a device used to steer ships, boats, submarines, aircraft, hovercraft or other conveniences that move through air or water. Rudders operate by re-directing the flow of air or water past the hull or fuselage, thus imparting a turning or yawing motion to the craft. In basic form, a rudder is a flat plane or sheet of material attached with hinges to the craft's stern, tail or after end.

Runway

Pista

A runway (RWY) is a strip of land on an airport, on which aircraft can take off and land. Runways may be a prepared surface (often asphalt, concrete, or a mixture of both) or an unprepared surface (grass, dirt, or gravel).

Sand

Arena

A substance consisting of fine loose grains of rock or minerals, usually quartz fragments, found on beaches, in deserts, and in soil, sometimes used as a building material.

Sander

Lijadora

A sander is a power tool used to smooth wood and automotive or wood finishes. Sanders have a means to attach the sandpaper that does the work. Woodworking sanders are usually operated by electrical power while the ones used in auto-body repair work on compressed air.

Screw

Tornillo

A screw is a shaft with a helical groove or thread formed on its surface. Its main uses are as a threaded fastener used to hold objects together, and as a simple machine used to translate torque into linear force. It can also be defined as an inclined plane wrapped around a shaft.

Seawall

Dique de abrigo

A seawall is a form of hard coastal defense constructed on the inland part of a coast to reduce the effects of strong waves and to defend the coast around a town or harbour

from erosion. The walls can be sloping, vertical or curved to reflect wave power. The term is typically used to describe walls built on the land parallel to the coast, but may also apply to breakwaters and groynes which are built in the water.

Sedimentation

Decantación

Sedimentation describes the motion of molecules in solutions or particles in suspensions in response to an external force such as gravity, centrifugal force or electric force. Sedimentation may pertain to objects of various sizes, ranging from suspensions of dust and pollen particles to cellular suspensions to solutions of single molecules such as proteins and peptides. Even small molecules such as aspirin can be sedimented, although it can be difficult to apply a sufficiently strong force to produce significant sedimentation.

Seepage

Filtración, fuga

A quantity of a fluid that flows or passes slowly through fine pores or small openings.

Settlement

Asentamiento de suelos

Subsidence in a building. Settlement in construction refers to the distortion or disruption of parts of a building due to either; unequal compression of its foundations, shrinkage such as that which occurs in timber framed buildings as the frame adjusts its moisture content, or by undue loads being applied to the building after its initial construction.

Settling tank

Decantador

Settling tanks are used for separating solids and/or oil from another liquid. In food processing, the vegetable is crushed and placed inside of a settling tank with water. The oil floats the top of the water then is collected. In water and waste water treatment a flocculant is often added prior to settling to form larger particles that settle out quickly in a settling tank leaving the water with a lower turbidity.

R

S



Sewage

Aguas residuales

Sewage is the mainly liquid waste containing some solids produced by humans which typically consists of washing water, faeces, urine, laundry waste and other material which goes down drains and toilets from households and industry. It is one type of wastewater, and is a major actual or potential source of pollution especially in urban areas. Sewage services exist to manage sewage by collection, treatment and recycling or safe disposal into the environment.

Sewage treatment

Tratamiento de aguas

Sewage treatment, or domestic wastewater treatment, is the process of removing contaminants from wastewater, both runoff and domestic. It includes physical, chemical and biological processes to remove physical, chemical and biological contaminants. Its objective is to produce a wastestream (or treated effluent) and a solid waste or sludge also suitable for discharge or reuse back into the environment. This material is often inadvertently contaminated with toxic organic and inorganic compounds.

Sewer

Colector

A sewer is an artificial conduit or system of conduits used to remove sewage (human liquid waste) and to provide drainage. Storm sewers (also storm drains) are large pipes that transport storm water runoff from streets to natural bodies of water, to avoid street flooding. When the two systems are operated separately, the sewer system that is not the set of storm drains is called a sanitary sewer.

Shallow foundation

Cimentación superficial

Shallow foundations are usually embedded a few feet into soil. One common type is the spread footing which consists of strips or pads of concrete (or other materials) which extend below the frost line and transfer the weight from walls and columns to the soil or bedrock. Another common type is the slab-on-grade foundation where the weight of the building is transferred to the soil through a concrete slab placed at the surface.

Sheave

Polea

A sheave (pronounced "shiv") is a wheel or roller with a groove along its edge for holding a belt, rope or cable. When hung between two supports and equipped with a belt, rope or cable, one or more sheaves make up a pulley. The words sheave and pulley are sometimes used interchangeably.

Shear stress

Esfuerzo cortante

Shear stress is a stress state where the stress is parallel or tangential to a face of the material, as opposed to normal stress when the stress is perpendicular to the face. The variable used to denote shear stress is τ (tau). The definition of shear stress is:

$$\tau = \frac{VQ}{It}$$

With V being the shear force at that location, Q being the first moment of area, t being the thickness in the material perpendicular to the shear and I being the second moment of area of the cross section.

Shell

Cubierta

Thin-shell structures are light weight constructions using shell elements. These elements are typically curved and are assembled to large structures. Typical applications are fuselages of aeroplanes and roof structures in building.

Ship

Barco

A ship is a large watercraft capable of offshore navigation. It is usually designed for government (including military), research, or commercial use.

Shovel

Pala

A shovel is a tool for lifting and moving loose material such as coal, gravel, snow, soil, or sand. It is usually a hand tool consisting of a broad blade with edges or sides that is fixed to a medium-length handle. The term "shovel" is also applied to larger excavating machines, such as steam shovels, which are designed for the same purpose—lifting and moving material.

Shrinkage cracking

Retracción

Shrinkage cracks occur when concrete members undergo restrained volumetric changes (shrinkage) as a result of either drying, autogenous shrinkage, or thermal effects. Restraint is provided either externally (i.e. supports, walls, and other boundary conditions) or internally (differential drying shrinkage, reinforcement). Once the tensile strength of the concrete is exceeded, a crack will develop. The number and width of shrinkage cracks that develop are influenced by the amount of shrinkage that occurs, the amount of restraint present, and the amount and spacing of reinforcement provided.

Silt

Limo

Silt is soil or rock derived granular material of a specific grain size. Silt particles fall between 1/256 and 1/16 mm (3.9 to 62.5 µm), larger than clay but smaller than a sand.

Skyscraper

Rascacielo

A skyscraper is a very tall, continuously habitable building. Although there is no uniform official definition or a precise cutoff height above which a building may clearly be classified as a skyscraper, a minimum height of 100 meters or approximately 330 feet (the equivalent of 25 to 30 stories) may constitute a safe criterion for such a qualification. However, as per usual practice in most cities the definition is used empirically, depending on the relative impact of the shape of a building to a city's overall skyline. Thus, depending on the average height of the rest of the buildings and/ or structures in a city, even a building of 80 meters height (approximately 262 feet) may be considered a skyscraper provided that it clearly stands out above its surrounding built environment and significantly changes the overall skyline of this particular city.

Slab

Losa

Slab can refer to square or rectangular concrete paver used to construct pavements, patios, paths, etc...

Slab-on-grade foundation

Losa de cimentación

Slab-on-grade foundations are a building engineering practice whereby the concrete slab that is to serve as the foundation for the structure is formed from a mold set into the ground. The concrete is then poured into the mold, leaving no space between the ground and the structure. This type of construction is most often seen in warmer climates, where ground freezing and thawing is less of a concern and where there is no need for heat ducting underneath the floor.

Sludge

Fango

Sludge is the residual semi-solid material left from industrial, water treatment, or wastewater treatment processes.

Slag

Escoria, escombros

Slags are the by-product of smelting ore to purify metals. They can be considered to be a mixture of metal oxides; however, they can contain metal sulphides and metal atoms in the elemental form. While slags are generally used as a waste removal mechanism in metal smelting, they can also serve other purposes, such as assisting in smelt temperature control and minimizing re-oxidation of the final liquid metal product before casting.

Sling

Eslinga

A sling is one of various designs of webbing (usually Nylon) or steel (chain or cable) straps either with eyes on each end or an endless loop, used in rigging for lifting heavy loads. A choker sling is intended for use with one end run through the other end in a way that allows it to tighten on the load to positively secure it during a face lift.

Slip

Deslizamiento

In structural engineering, slip prevents excessive loads on joints and allows response to stress without damage. Used particularly in some seismic retrofit modifications to large structures. See slip critical joint and slip joint.

Slope

Pendiente

Is often used to describe the measurement of the steepness, incline, gradient, or grade of a straight line. A higher slope value indicates a steeper incline. The slope is defined as the ratio of the "rise" divided by the "run" between two points on a line, or in other words, the ratio of the altitude change to the horizontal distance between any two points on the line. It is also always the same thing as how many rises in one run.

Sluicagate

Compuerta

A sluice is a water channel that is controlled at its head by a gate. A sluice gate is traditionally a wooden or metal plate which slides in grooves in the sides of the channel. Sluice gates are commonly used to control water levels and flow rates in rivers and canals. They are also used in wastewater treatment plants.

Slurry

Lodo

A slurry is in general a thick suspension of solids in a liquid and may be:

A mixture of water and Bentonite used to make slurry walls.

A mixture of wood pulp and water used to make paper.

A mixture of water and animal waste used as fertilizer.

Meat slurry, a food product.

An abrasive substance used in chemical-mechanical polishing, a semiconductor manufacturing process.

A mixture of ice crystals, water and freezing point depressant, called slurry ice.

A wet-process cement rawmix.

Smelting

Fundición

Chemical reduction, or smelting, is a form of extractive metallurgy. The main use of smelting is to produce a metal from its ore. This includes iron extraction (for the production of steel) from iron ore, and copper extraction and other base metals from their ores. It makes use of a chemical reducing agent, commonly a fuel that is a source of carbon such as coke, or in earlier times charcoal, to change the oxidation state of the metal ore.

Soil cement

Hormigón poroso

Soil cement is a construction material, a mix of pulverized natural soil with small amount of portland cement and water, usually processed in a tumble, compacted to high density. Hard, semi-rigid durable material is formed by hydration of the cement particles. Soil cement is frequently used as a construction material for pipe bedding, slope protection, and road construction as a subbase layer reinforcing and protecting the subgrade. It has good compressive and shear strength, but low tensile strength and brittleness, so it is prone to forming cracks.

Soil liquefaction

Licuefacción

Describes the behavior of water saturated soil when its behavior changes from that of a solid to that of a liquid. Some types of liquefaction include quicksand, quick clay, turbidity currents, and earthquake liquefaction. Liquefaction occurs when the contact stress (effective stress) between solid soil particles is reduced. The reduction in contact stress can be caused by water flowing upward in the case of quicksand and excess pore water pressure caused by ground shaking in the case of earthquake liquefaction.

Solution

Solución

In chemistry, a solution is a homogeneous mixture composed of two or more substances. In such a mixture, a solute is dissolved in another substance, known as a solvent. A common example is a solid, such as salt or sugar, dissolved in water, a liquid. Gases may dissolve in liquids, for example, carbon dioxide or oxygen in water. Liquids may dissolve in other liquids and gases always mix with other gases.

S

Space frame

Entramado

A space frame is a truss-like, lightweight rigid structure constructed from interlocking struts in a geometric pattern. Space frames usually utilize a multidirectional span, and are often used to accomplish long spans with few supports. They derive their strength from the inherent rigidity of the triangular frame; flexing loads (bending moments) are transmitted as tension and compression loads along the length of each strut.

Span

Vano(Luz)

Span is a section between two intermediate supports, e.g. of a beam or a bridge. A span can be made of a solid beam or of a rope. The first kind of spans is used for bridges, the second one used for power lines, overhead telecommunication lines, some type of antennas or for aerial tramways.

Specific energy

Energía específica

Energy density is the amount of energy stored in a given system or region of space per unit volume, or per unit mass, depending on the context. In energy storage applications, the energy density relates the mass of an energy store to its stored energy. The higher the energy density, the more energy may be stored or transported for the same amount of mass. In the context of fuel selection, that energy density of a fuel is also called the specific energy of that fuel.

Spread footing foundation

Zapatas de cimentación

Spread footing foundations consists of strips or pads of concrete (or other materials) which transfer the loads from walls and columns to the soil or bedrock. Embedment of spread footings is controlled by several factors, including development of lateral capacity, penetration of soft near-surface layers, and penetration through near-surface layers likely to change volume due to frost heave or shrink-swell.

Spillway

Desagüe

A spillway is a structure used to provide for the controlled release of flood flows from a dam or levee into a downstream area,

typically being the river that was dammed. Spillways release floods so that the water does not overtop and damage or even destroy the dam. Except during flood periods, water does not normally flow over a spillway.

Spoil tip

Vertedero

The heap of accumulate waste material.

Statistics

Estadística

Statistics is a mathematical science pertaining to the collection, analysis, interpretation or explanation, and presentation of data. It is applicable to a wide variety of academic disciplines, from the physical and social sciences to the humanities. Statistics are also used for making informed decisions – and misused for other reasons – in all areas of business and government.

Static electricity

Electricidad estática

Static electricity is an important element in the biological process of pollination by bees since the charge on a bee's body helps to attract and hold pollen.

Steam engine

Máquina de vapor

A steam engine is an external combustion heat engine that makes use of the heat energy that exists in steam, converting it to mechanical work.

Steel

Acero

Is an alloy comprised mostly of iron, with a carbon content between 0.02 % and 1.7 % by weight, depending on grade.

Stony aggregate

Agregado pétreo

Barren composed of hard particles, stable form and size.

S

Strain

Deformación

Is the geometrical expression of deformation caused by the action of stress on a physical body. Strain is calculated by first assuming a change between two body states: the beginning state and the final state. Then the difference in placement of two points in this body in those two states expresses the numerical value of strain. Strain therefore expresses itself as a change in size and/or shape.

Streamline

Lineas de corriente

Fluid flow is described in general by a vector field in three (for steady flows) or four (for non-steady flows including time) dimensions. Pathlines, streamlines, and streaklines are field lines of different vector field descriptions of the flow. For steady flow (see below), the three are the same.

Stress

Tensión

Is the internal distribution of force per unit area that balances and reacts to external loads applied to a body. It is a second-order tensor with nine components, but can be fully described with six components due to symmetry in the absence of body moments.

Structural failure

Fallo estructural

Structural failure refers to loss of the load-carrying capacity of a component or member within a structure or of the structure itself. Structural failure is initiated when the material is stressed to its strength limit, thus causing fracture or excessive deformations. The ultimate failure strength of the material, component or system is its maximum load-bearing capacity. When this limit is reached, damage to the material has been done, and its load-bearing capacity is reduced permanently, significantly and quickly. In a well-designed system, a localized failure should not cause immediate or even progressive collapse of the entire structure.

Structural steel

Acero estructural

Structural steel is steel construction material, a profile, formed with a specific shape or cross section and certain standards of

chemical composition and strength. Structural steel shape, size, composition, strength, storage, etc, is regulated in most industrialised countries.

Stiffness

Rigidez

Is the resistance of an elastic body to deflection or deformation by an applied force. It is an extensive material property.

Stress-strain curve

Curva tensión-deformación

Is a graph derived from measuring load (stress - σ) versus extension (strain - ϵ) for a sample of a material. The nature of the curve varies from material to material.

Structure

Estructura

An architectural structure is a free-standing, immobile outdoor construction.

Structural engineering

Ingeniería estructural

Is a field of engineering that deals with the design of any structural system(s), the purpose of which is to support and resist various .

Structural loads

Cargas estructurales

They are forces applied to a component of a structure or to the structure as a unit.

Subgrade

Terreno natural

In highway engineering, subgrade is the native material underneath a constructed pavement. It is also called formation level.

Subsidence

Hundimiento

In geology, engineering, and surveying, subsidence is the motion of a surface (usually, the Earth's surface) as it shifts downward relative to a datum such as sea-level. The opposite of subsidence is uplift, which results in an increase in elevation.

Subsidence by collapse

Colapso por hundimiento

This commonly occurs over man-made voids, such as tunnels, wells and covered quarries. It is also frequent in karst terrains, where dissolution of limestone by fluid flow in the subsurface causes the creation of voids (i.e. caves). If the roof of these voids becomes too weak, it can collapse and the overlying rock and earth will fall into the space, causing subsidence at the surface. This type of subsidence can result in sinkholes which can be many hundreds of meters deep and can provide areas of ecological isolation which see the evolution of new branches of animal and plant life.

Suction

Succión

Suction is the creation of a partial vacuum, or region of low pressure. The pressure gradient between this region and the ambient pressure will propel matter toward the low pressure area. Physicists consider the notion of "suction" to be specious, since vacuums do not innately attract matter.

Suction pipe

Sumidero

Absortion system.

Superstructure

Superestructura

A superstructure is an extension of an existing structure or baseline. This term is applied to both physical structures (e.g buildings and ships) or to conceptual structures (social science).

Surface tension

Tensión superficial

Is an effect within the surface layer of a liquid that causes that layer to behave that causes that layer to behave as an elastic sheet.

Suspension bridge

Puentes colgantes

The suspension cables must be anchored at each end of the bridge, since any load applied to the bridge is transformed into a tension in these main cables. The main cables continue beyond the pillars to deck-level supports, and further continue to connections with anchors in the ground. The roadway is supported by

vertical suspender cables or rods. In some circumstances the towers may sit on a bluff or canyon edge where the road may proceed directly to the main span, otherwise the bridge will usually have two smaller spans, running between either pair of pillars and the highway, which may be supported by suspender cables or may use a truss bridge to make this connection.

Swash (Backwash)

Resaca

In geography, is the water that washes up on shore after an incoming wave has broken. This action will cause sand and other light particles to be transported up the beach. The direction of the swash varies with the prevailing wind, whereas the backwash is always perpendicular to the coastline. This may cause longshore drift.

Tangent

Tangente

A line is tangent to a curve, at some point, if both line and curve pass through the point with the same direction.

Tarmac

Asfalto

Tarmac (short for tarmacadam, a portmanteau for tar-penetration macadam) is a type of highway surface. The term is also used, with varying degrees of correctness, for a variety of other materials, including tar-grouted macadam, Tarvia, bituminous surface treatments and even modern asphalt concrete.

Telescopic crane

Grúa telescópica

A telescopic crane has a boom that consists of a number of tubes fitted one inside the other. A hydraulic or other powered mechanism extends or retracts the tubes to increase or decrease the total length of the boom. These types of booms are often used for short term construction projects, rescue jobs, lifting boats in and out of the water, etc. The relative compactness of telescopic booms make them adaptable for many mobile applications.

S

T



Tangent

Tangente

In plane geometry, a line is tangent to a curve, at some point, if both line and curve pass through the point with the same direction. Such a line is called the tangent line (or tangent). The tangent line is the best straight-line approximation to the curve at that point.

Temporary fence

Valla de protección

A temporary fence is used where building a permanent fence is either impractical or unneeded. Temporary fencing is most commonly used as security fencing for building sites. Other uses for temporary fencing include venue division at large events and public restriction on industrial construction sites.

Tensor

Tensor

The term 'tensor' has slightly different meanings in mathematics and physics. In differential geometry and multilinear algebra the mathematical fields of \mathbb{R} , a tensor is a multilinear function. In physics and engineering, the same term usually means what a mathematician would call a tensor field: an association of a different (mathematical) tensor with each point of a geometric space, varying continuously with position.

Terminal

Terminal

An airport terminal is a building at an airport where passengers transfer between ground transportation and the facilities that allow them to board and disembark from airplanes.

Test drilling

Sondeo

Tetrapod

Tetrápodo

In coastal engineering a tetrapod is a four-legged concrete structure used as armour unit on breakwaters.

Thermodynamics

Termodinámica

Thermodynamics (from the Greek θερμη, therme, meaning "heat" and δυναμις, dunamis, meaning "power") is a branch of physics that studies the effects of changes in temperature, pressure, and volume on physical systems at the macroscopic scale by analyzing the collective motion of their particles using statistics.

Thixotropy

Tixotropía

Thixotropy is the property of some non-newtonian pseudoplastic fluids to show a time-dependent change in viscosity; the longer the fluid undergoes shear, the lower its viscosity. A thixotropic fluid is a fluid which takes a finite amount of time to reach an equilibrium viscosity when introduced to a step change in shear rate.

Thrust

Empuje (Reacción)

Thrust is a reaction force described quantitatively by Newton's Second and Third Laws. When a system expels or accelerates mass in one direction the accelerated mass will cause a proportional but opposite force on that system.

Thumbtack

Chincheta

A thumbtack is a short nail or pin with a large, slightly rounded head made of metal which is used to fasten documents to a background for public display and which can easily be inserted or removed by hand.

Tides

Mareas

Tides are the cyclic rising and falling of Earth's ocean surface caused by the tidal forces of the Moon and the Sun acting on the oceans. Tides cause changes in the depth of the marine and estuarine water bodies and produce oscillating currents known as tidal streams, making prediction of tides important for coastal navigation (see Tides and navigation). The strip of seashore that is submerged at high tide and exposed at low tide, the intertidal zone, is an important ecological product of ocean tides.

Torsion

Torsión

In solid mechanics, torsion is the twisting of an object due to an applied torque. In circular . In circular shearing stresssections, the resultant is perpendicular to the radius.

Torque

Momento

In physics, torque (or often called a moment) can informally be thought of as "rotational force" or) can informally be thought of as "rotational force" or "angular force" which causes a change in rotational motion. This force is defined by linear force multiplied by a radius. The SI unit for torque is the newton metre (N m).

Toughness

Tenacidad

Is the resistance to fracture of a material when stressed. It is defined as the amount of energy that a material can absorb before rupturing, and can be found by finding the area (i.e., by taking the integral) underneath the stress-strain curve. Toughness is measured in units of joules per cubic meter (J/m³) in the SI system and pound-force per square inch (sometimes expressed as in-lbf/in³) in US customary units.

Tower crane

Grúa torre

The tower crane is a modern form of balance crane. Fixed to the ground (or "jacked up" and supported by the structure as the structure is being built), tower cranes often give the best combination of height and lifting capacity and are used in the construction of tall buildings. To save space and to provide stability the vertical part of the crane is often braced onto the completed structure which is normally the concrete lift shaft in the center of the building. A horizontal boom is balanced asymmetrically across the top of the tower. Its short arm carries a counterweight of concrete blocks, and its long arm carries the lifting gear.

Track ballast

Balasto

Consisting of gravel, cinders or other aggregate, forms the trackbed upon which railroad ties (US) or railway sleepers

(UK) are laid. It is used to facilitate drainage of water, and to create an even running surface. This also serves to hold the track in place as the trains roll by.

Tractive effort

Esfuerzo de tracción

Tractive Effort (abbr. TE) is the pulling force exerted, normally by a locomotive, though the term could also be used for anything else that pulls a load. It is normally understood to be the actual force on the locomotive's drawbar or rear coupler.

Train

Ferrocarril

In rail transport, a train consists of rail vehicles that move along guides to transport freight or passengers from one place to another. The guideway (permanent way) maglev or monorail, but might also be rail tracksusually consists of conventional .

Transom

Montante

In architecture, a transom is the term given to the horizontal member which is framed across a window, dividing it into stages or heights.

Trench

Foso, trinchera

A trench is a long narrow ditch.

Trowell

Llana

A flat, broad-blade steel hand tool used in the final stages of finishing operations to impart a relatively smooth surface to concrete floors and other unformed concrete surfaces.

Truck

Camión

Is a large vehicle usually used for transporting bulk goods or other materials.

T

Truss

Celosía

In architecture and structural engineering, a truss is a static structure consisting of straight slender members inter-connected at joints into consisting of straight slender members inter-connected at joints into triangular units.

Truss bridge

Puente celosía

A truss bridge is a bridge composed of connected elements (typically straight) which may be stressed from tension, compression, or sometimes both in response to dynamic loads. Truss bridges are one of the oldest types of modern bridges. This type of bridge structure has a fairly simple design and is particularly cheap to construct owing to its efficient use of materials.

Tunnel

Túnel

A tunnel is an underground passage. The definition of what constitutes a tunnel is not universally agreed upon. However, in general tunnels are at least twice as long as they are wide. In addition, they should be completely enclosed on all sides, save for the openings at each end.

Tunnel-boring machine

Tuneladora

Tunnel-boring machines (TBMs) can be used to automate the entire tunneling process. There are a variety of TBMs that can operate in a variety of conditions.

Tunneling shield

Escudo

A tunnelling shield is a protective structure used in the excavation of tunnels through soil that is too soft or fluid to remain stable during the time it takes to line the tunnel with a support structure of concrete, cast iron or steel. In effect, the shield serves as a temporary support structure for the tunnel while it is being excavated.

Turbidity

Turbidez

Turbidity is a cloudiness or haziness of water (or other fluid) caused by individual particles (suspended solids) that are generally invisible

to the naked eye, thus being much like smoke in air.

Turbine

Turbina

A water turbine is a rotary engine that takes energy from moving water.

Ultimate failure

Deformación última

Ultimate failure strength is one of the limit states that must be accounted for in civil engineering and structural design.

Vacuum

Vacio

A vacuum is a volume of space that is essentially empty of matter, so that gaseous pressure is much less than standard atmospheric pressure.

Valve

Válvula

A valve is a device that regulates the flow of substances (either gases, fluidized solids, slurries, or liquids) by opening, closing, or partially obstructing various passageways. Valves are technically pipe fittings, but usually are discussed separately.

Vault

Bóveda

A Vault (French. voute, Italian. volta, German. Gewölbe) in architecture is the term given to the covering over of a space with stone or brick in arched form, the component parts of which exert a thrust and necessitate a counter resistance.

Vector

Vector

In physics and in vector calculus, a spatial vector, or simply vector, is a concept characterized by a magnitude and a direction.

Vector field

Espacio vectorial

In mathematics a vector field is a construction in vector calculus which associates a vector to every point in a (locally) Euclidean space.

T

U

V

Velocity

Velocidad

The velocity of an object is its speed in a particular direction. Velocity can also be defined as rate of change of displacement or just as the rate of displacement. It is a vector physical quantity with dimension LT^{-1} . In the SI (metric) system, it is measured in metres per second (m/s). The scalar absolute value (magnitude) of velocity is speed.

Viaduct

Viaducto

A viaduct is a bridge composed of several small spans. Many viaducts over land connect points of similar height in a landscape, usually by bridging a river valley or other eroded opening in an otherwise flat area. Often such valleys have roads descending either side (with a small bridge over the river, where necessary) that become inadequate for the traffic load, necessitating a viaduct for through traffic.

Vibrator

Vibrador

A vibrator is a mechanical device that is designed to generate vibrations. The vibration is often generated by an electric motor with an unbalanced mass on its driveshaft. If the motor is switched on, the rotating weight resonates. Vibrators are used in many different industrial applications both as components and as individual pieces of equipment. Many vibrators are used to help move bulk material or small component parts. Concrete vibrators are used to consolidate fresh concrete so that entrapped air and excess water are released and the concrete settles firmly in place in the forms. Improper consolidation of concrete can cause product defects, compromise the concrete strength, and produce surface blemishes such as bug holes and honeycombing. An internal concrete vibrator is a steel cylinder about the size of a baseball bat with a hose or electrical cord attached to one end. The vibrator head immersed in the wet concrete. External concrete vibrators attach, via a bracket or clamp system, to the concrete forms.

Viscosity

Viscosidad

Is a measure of the resistance of a fluid to deform under shear stress. It is commonly perceived . It is commonly perceived as

"thickness", or resistance to flow. Viscosity describes a fluid's internal resistance to flow and may be friction thought of as a measure of fluid .

Volt

Voltio

The volt (symbol: V) is the SI derived unit of electric potential difference or electromotive force.

Von Mises stress, σ_v , or simply Mises stress

Tensión de Von Mises

Is a scalar function of the components of the stress tensor that gives an appreciation of the overall 'magnitude' of the tensor. This allows the onset and amount of plastic deformation under triaxial loading to be predicted from the results of a simple uniaxial tensile test. It is most applicable to ductile materials. The fundamental criteria for failure using the von Mises theory is 0.577.

$$\tau_0 = \frac{\sqrt{2}\sigma_0}{3}$$

; where τ_0 is the allowable shear.

Volume

Volumen

The volume of a solid object is how much space it occupies, often quantified numerically. One-dimensional objects (such as lines) and two-dimensional objects (such as squares) are assigned zero volume in the three-dimensional space.

Voussoir

Dovela

A voussoir is a wedge-shaped element in an arch. Each wedge-shaped voussoir turns aside the thrust of the mass above, transferring it from stone to stone to the final edge, which is horizontal and passes the thrust to the supports. Voussoir arches distribute weight efficiently and take maximum advantage of the compressive strength of stone, as in an arch bridge. The outer boundaries of a voussoir are the extrados.



Warping

Alabeo

Deformation of curvature of a concrete slab, produced by temperature gradients.

Waste

Escombro

The slag from the excavation.

Waterway

Vía navegable

A waterway is any navigable body of water. These include rivers, lakes, oceans, and canals. In order for a waterway to be navigable, it must meet several criteria.

Water-cement ratio

Relación agua/cemento

Water-cement ratio is the ratio of weight of water to the weight of cement used in a concrete mix. It has some important influences on the quality of concrete produced. A lower water-cement ratio leads to higher strength and durability, but may make the mix more difficult to place. The water-cement ratio is independent of the total cement content (and the total water content) of a concrete mix.

Waterproof

Impermeable

The term waterproof describes something that is unaffected by water or covered with a material that doesn't allow water in. Such items are suitable for use in wet environments (outdoors) or under water.

Water table

Nivel freático

The water table or phreatic surface is the surface where the water pressure is equal to atmospheric pressure. A large amount of water within a body of sand or rock below the water table is called an aquifer, and the ability of rocks to store such groundwater is dependent on their porosity and permeability.

Wave

Onda

A wave is a disturbance that propagates through space or spacetime, often transferring energy.

Wavelength

Longitud de onda

The wavelength is the distance between repeating units of a wave pattern. It is commonly designated by the Greek letter lambda (λ).

Water-bearing

Acuífero

An underground river flow.

Weight

Peso

In the physical sciences, weight is a measurement of the gravitational force acting on an object. In everyday parlance (and, for historical reasons, still in some scientific terminology), "weight" is often used as a synonym for mass.

Weir (Barrage)

Azud (presa de derivación)

A weir is a small overflow-type dam commonly used to raise the level of a river or stream. Weirs have traditionally been used to create mill ponds in such places. Water flows over the top of a weir, although some weirs have sluice gates which release water at a level below the top of the weir. The crest of an overflow spillway on a large dam is often called a weir.

Weld

Soldar

Welding is a fabrication process that joins materials, usually metals or thermoplastics, by causing coalescence. This is often done by melting the workpieces and adding a filler material to form a pool of molten material (the weld puddle) that cools to become a strong joint, with pressure sometimes used in conjunction with heat, or by itself, to produce the weld. This is in contrast with soldering and brazing, which involve melting a lower-melting-point material between the workpieces to form a bond between them, without melting the workpieces.

V

W

Wharf

Muelle (embarcadero)

A wharf is a fixed platform, commonly on pilings, roughly parallel to and alongside navigable water, where ships are loaded and unloaded. They often serve as interim storage areas. Smaller and more modern wharves are sometimes built on flotation devices (pontons) to keep them at the same level to the ship even during changing tides.

Wheel

Rueda

A wheel is a circular device capable of rotating on its axis, facilitating movement or is a circular device capable of rotating on its axis, facilitating movement or transportation or performing labour in machines.

Winch

Cabrestante

A winch is a mechanical device that is used to wind up a rope or wire rope (also called "cable"). In its simplest form it consists of a spool and attached crank. The spool can also be called the winch drum.

Wire rope

Tirante

Wire rope consists of several strands laid (or 'twisted') together like a helix. Each strand is likewise made of metal wires laid together like a helix. Initially wrought iron wires were used, but today steel is the main material used for wire ropes.

Work

Trabajo

In physics, mechanical work is the amount of energy transferred by a force. Like energy, it is a scalar quantity, with SI units of joules.

Workability (or consistence, as it is known in Europe)

Trabajabilidad (consistencia)

Is the ability of a fresh (plastic) concrete mix to fill the form / mould properly with the , as it is known in Europe) is the ability of a fresh (plastic) concrete mix to fill the form / mould properly with the desired work (vibration) and without reducing the concrete's quality. Workability depends on water content, aggregate (shape and size hydration distribution), cementitious content

and age (level of), and can be modified by adding chemical admixtures.

Young's modulus (E)

Módulo de Young o de elasticidad

Is a measure of the stiffness of a given material. It is also known as the Young modulus, modulus of elasticity, elastic modulus or tensile modulus (the bulk modulus and shear modulus are different types of elastic modulus). It is defined as the ratio, for small strains, of the rate of change of stress with strain. This can be experimentally determined from the slope of a stress-strain tensile tests created during curve conducted on a sample of the material.

