

waffle—see dome.

Wagner fineness—the fineness of portland cement, expressed as total surface area in square centimeters per gram, determined by the Wagner turbidimeter apparatus and procedure.

wale—a long formwork member (usually double) used to gather loads from several studs (or similar members) to allow wider spacing of the restraining ties; when used with prefabricated panel forms, this member is used to maintain alignment; also called waler or ranger.

waler—see wale.

wall—a vertical element used primarily to enclose or separate spaces.

wall, enclosure—a non-load-bearing wall intended only to enclose space.

wall, load-bearing—a wall designed and built to carry superimposed vertical or in-plane and shear loads, or both. (See also wall, nonbearing.)

wall, nonbearing—a wall that supports no vertical load other than its own weight and no in-plane shear loads. (See also load-bearing wall.)

wall, stub—low wall, usually 4 to 8 in. (100 to 200 mm) high, placed monolithically with a concrete floor or other members to provide for control and attachment of wall forms; called kicker in the UK.

wall, veneer—the exterior layer of any wall system.

wall form—see form, wall.

warehouse pack—see set, warehouse and cement, sticky.

warehouse set—see set, warehouse.

warping—a deviation of a surface from its original shape, usually caused by either temperature or moisture differentials, or both, within the material. (See also curling.)

warping joint—see joint, warping.

wash (or flush) water—see water, wash (or flush).

washout—erosion of the surface layers of a freshly-mixed material by the flow of water over its surface, e.g., the washout of cement from concrete or mortar.

water—

water, adsorbed—water held on surfaces of a material by electrochemical forces and having physical properties substantially different from those of absorbed water or chemically combined water at the same temperature and pressure. (See also adsorption and moisture, absorbed. )

water, evaporable—water in set cement paste present in capillaries or held by surface forces; measured as that removable by drying under specified conditions. (See also water, non-evaporable.)

water, flush—see water, wash (or flush).

water, free—see moisture, free.

water, gage—see batched water.

water, mixing—the water in freshly mixed sand-cement grout, mortar, or concrete, exclusive of any previously absorbed by the aggregate (for example, water considered in the computation of the net water-cement ratio). (See also batched water and moisture, surface.)

water, non-evaporable—the water that is chemically combined during cement hydration; not removable by specified drying. (See also water, evaporable.)

water, wash (or flush)—water carried on a truck mixer in a special tank for flushing the interior of the mixer after discharge of the concrete.

water absorption—the amount of water a material absorbs under specified test conditions. (See also moisture, absorbed.)

water-activated grout—see grout, water-activated.

water beading—surface property that causes the formation of discrete water droplets on a surface.

water blast—water discharged through a nozzle at high velocity; used to cut or abrade a concrete surface.

water-cement ratio—the ratio of the amount of water, exclusive only of that absorbed by the aggregates, to the amount of cement in a concrete, mortar, grout, or cement paste mixture; preferably stated as a decimal by mass and abbreviated *w/c*. (See also water-cementitious material ratio.)

water-cementitious material ratio—the ratio of the amount of water, exclusive only of that absorbed by the aggregate, to the amount of cementitious material in a concrete or mortar mixture. (See also water-cement ratio.)

water gain—see bleeding.

water jet—stream of water flowing from a nozzle under high pressure (>10,000 psi) used to clean surfaces or remove concrete.

water pocket—see void, water.

waterproof—impervious to water in either liquid or vapor state. (See also dampproofing.) (Note: Since nothing can be completely “impervious” to water under infinite pressure over infinite time, this term should not be used.)

waterproofed cement—see water repellent.

waterproofing—see dampproofing (preferred term).

waterproofing compound—see compound, waterproofing.

water-reducer—see admixture, water-reducing.

water-reducer (high-range)—see admixture, water-reducing (high-range).

water-repellent—property of a surface that resists wetting (by matter in either liquid or vapor state) but permits passage of water when hydrostatic pressure occurs. (See also watertight.)

water-resistant—see water-repellent (preferred term).

water ring—a device in the nozzle body of dry-mix shotcrete equipment through which water is added to the materials.

waterstop—a thin sheet of metal, rubber, plastic, or other material installed across a joint to impede seepage.

watertight—impermeable to water except when under hydrostatic pressure sufficient to produce structural discontinuity by rupture.

water vapor permeability—the time rate of water vapor transmission through unit area of flat material of unit thickness induced by vapor pressure difference between two specific surfaces, under specified temperature and humidity conditions.

water vapor permeance—the time rate of water vapor transmission through unit area of flat material or construction induced by vapor pressure difference between two specific surfaces, under specified temperature and humidity conditions.

water vapor transmission—the rate of water vapor flow through a unit area of a material, normal to specific parallel surfaces, under specific conditions of temperature and humidity at each surface. (See also permeability; permeance (water vapor); and perm.)

water vapor transmission rate—the steady water vapor flow in unit time through unit area of a body, normal to specific parallel surfaces, under specific conditions of temperature and humidity at each surface.

water void—see void, water.

w/c—see water-cement ratio.

w/cm—see water-cementitious material ratio.

weakened-plane joint—see joint, groove and joint, contraction (preferred term).

wearing course—a topping or surface treatment to increase the resistance of a concrete pavement or slab to abrasion.

weathering—degradation in color, texture, strength, chemical composition or other properties of a material caused by exposure to the weather.

web bar—see reinforcement, web (preferred term).

web reinforcement—see reinforcement, web.

wedge—a piece of wood or metal tapering to a thin edge; used to adjust elevation or tighten formwork.

wedge anchorage—see anchorage, wedge.

weigh batching—measuring the constituent materials for mortar or concrete by mass.

weight, dry-batch—the mass of the materials, excluding water, used to make a batch of concrete.

weight, dry-rodded—deprecated term; see density, dryrodded.

welded-butt splice—see splice, welded-butt.

welded reinforcement—see reinforcement, welded.

welded-wire fabric—see fabric, welded-wire.

welded-wire fabric reinforcement—see reinforcement, welded-wire fabric.

well-graded aggregate—see aggregate, well-graded.

wet—covered with visible free moisture; not dry. (See also damp and moist.)

wet blasting—a process for cleaning or finishing a surface by directing a water-based abrasive slurry at high velocity against the surface.

wet-cast process—see process, wet-cast.

wet-mix shotcrete—see shotcrete, wet-mix.

wet process—see process, wet.

wet screening—screening to remove fresh concrete aggregate particles larger than a certain size.

wet sieving—use of water to facilitate sieving of a granular material on standard sieves.

wettest stable consistency—the condition of maximum water content at which cement grout and mortar will adhere to a vertical surface without sloughing.

wetting agent—a substance used to reduce the surface tension of liquids so that solid surfaces can be wetted and liquids can penetrate the capillaries.

wheel, feed—material distributor or regulator in certain types of shotcrete equipment.

wheel load—see load, wheel.

white cement—see cement, white.

width, effective flange—width of slab adjoining a beam stem where the slab is assumed to function as the flange element of a T-beam section.

Windsor probe—a device developed to estimate the quality and compressive strength of insitu concrete by measuring the depth of penetration of probes driven into the concrete surface by means of a powder actuated driver.

wing pile—see pile, wing.

wire—

wire, alignment—see wire, ground.

wire, cold-drawn—wire made from rods that are hotrolled from billets and then cold-drawn through dies. (See also reinforcement, cold-drawn wire.)

wire, crimped—wire deformed into a curve that approximates a sine curve as a means of increasing the capacity of the wire to bond to concrete; also welded wire fabric crimped to provide an integral chair. (See also reinforcement, deformed and wire, indented.)

wire, ground—small-gage high-strength steel wire used to establish line and grade as in shotcrete work; also called alignment wire and screed wire.

wire, indented—wire having machine-made surface indentations intended to improve bond; depending on the type of wire, used for either concrete reinforcement or pretensioning tendons.

wire mesh—see fabric, welded-wire.

wire wrapping—application of high tensile wire, wound under tension by machines, around

circular concrete or shotcrete walls, domes, or other tension-resisting structural components.

wobble coefficient—a coefficient used in determining the friction loss occurring in post-tensioning, which is assumed to account for the secondary curvature of the tendons.

wobble friction—see friction, wobble.

wood block—see block, wood.

workability—that property of freshly-mixed materials which determines the ease and homogeneity with which it can be mixed, placed, consolidated, and finished.

working life—the period of time during which an adhesive, after mixing with catalyst, solvent, or other compounding ingredients, remains sufficiently workable to permit application and spreading.

working load—see load, working.

working stress—see stress, working.

working-stress design—see design, working-stress.

woven-wire fabric—see fabric, woven-wire.

woven-wire reinforcement—see fabric, welded-wire (preferred term).

wrapping—see strand wrapping and wire wrapping.

wrecking strip—see strip, wrecking.

wythe (leaf)—each continuous vertical section of a wall that is one masonry unit or grouted space in thickness.