

ultimate-design resisting moment—the moment at which a reinforced-concrete section reaches its usable flexural strength, commonly accepted for under-reinforced concrete flexural members to be the bending moment at which the concrete compressive strain equals 0.003; an obsolete term.

ultimate moment—an obsolete term; see strength, nominal flexural.

ultimate shear strength—an obsolete term; see strength, nominal shear.

ultimate strength—an obsolete term; see strength, nominal.

ultimate-strength design—see strength-design method.

ultrasonic—pertaining to mechanical vibrations having a frequency greater than approximately 20,000 Hz.

ultrasonic echo—a nondestructive testing method for locating delaminations and voids in relatively thin elements with a transducer that emits a short pulse of ultrasonic waves which is reflected by the opposite side of an element or internal defect and recorded by an adjacent receiver.

ultrasonic pulse velocity—a nondestructive testing method for assessing the relative condition of hardened concrete by measuring the travel time of a pulse of ultrasonic waves through a section with a known path length.

unbonded member—a prestressed concrete member posttensioned with tendons that are not bonded to the concrete between the end anchorages after stressing.

unbonded post-tensioning—post-tensioning in which the tendons are not grouted after stressing.

unbonded tendon—see tendon, unbonded.

unbraced length of column—distance between lateral supports.

underbed—the base mortar, usually horizontal, into which strips are embedded and on which terrazzo topping is applied.

undersanded—concrete containing an insufficient proportion of fine aggregate to produce optimum properties in the fresh mixture, especially workability and finishing characteristics.

undersize—particles of aggregate passing a designated sieve.

underwater concrete—see concrete, underwater.

unhardened concrete—see concrete, fresh (preferred term).

unreinforced concrete—see concrete, plain.

unit masonry—see masonry, unit.

unit strain—see strain, unit.

unit water content—the quantity of water per unit volume of freshly mixed concrete, often expressed as lb or gal./yd<sup>3</sup>; the quantity of water on which the water-cement ratio is based, not including water absorbed by the aggregate.

unit weight—deprecated term; see density.

unit weight, fired—see density, fired.

unsound—not firmly made, placed, or fixed; subject to deterioration or disintegration during service exposure.

unwatering—the interception, removal, or control of ponded or flowing surface water within structures or excavations. (See also dewatering.)

uplift—vertical displacement of a structure or formation because of grout injection.

urea—white crystals or powder, soluble in water and used as a deicer.

urea resin—see resin, urea.

urethane—see resin, urethane.

unsound—not firmly made, placed, or fixed; subject to deterioration or disintegration during service exposure.

U-value—overall coefficient of heat transmission; a standard measure of the rate at which heat will flow through a unit area of a material of known thickness.