

Curing Technologies

Vexcon Certi-Vex Penseal 244 FD

Vexcon's Certi-Vex Penseal 244 FD is a high-performance, breathable, fast-drying, clear silane water-repellent penetrating sealer. This sealer can be used for cool weather applications and where fast drying is critical. Certi-Vex Penseal 244 FD retards the intrusion of water, salts, deicing chemicals, and acids, which can result in efflorescence, mildew growth, corrosion of reinforcing bars, scaling, spalling, and surface erosion.

—Vexcon Chemicals, www.vexcon.com



Con-Cure NEX

Con-Cure NEX provides live access to concrete curing data, 24 hours a day from any internet browser. Small, reusable sensors are embedded inside the concrete, and lead wires from the sensors are routed to wireless nodes outside of the formwork. The nodes record concrete temperatures on SD cards and transmit the data via the cellular network to “the cloud.” The data are instantly visible to authorized users, and the temperature histories of the concrete are used to estimate the concrete strength per ASTM C1074, “Standard Practice for Estimating Concrete Strength by the Maturity Method.”

—Con-Cure, www.concure.com

Test Mark Industries Portable Curing Boxes

Test Mark Industries Portable Curing Boxes can store up to 22 standard 6 x 12 in. (152 x 305 mm) concrete test cylinders at 72°F ± 2°F (22 ± 1°C) over an ambient temperature range of -10 to 100°F (-23 to 38°C). A lockable lid prevents tampering and a bottom valve allows easy draining. The curing box requires a minimum 15-amp circuit, 115V/60 Hz. The deluxe model features a re-circulating water temperature control unit, temperature set buttons, digital readout of water temperature, and indicating lights.

—Test Mark Industries, www.testmark.net



Eriksson Beam

Eriksson Beam allows users to analyze and design precast/prestressed concrete beams in accordance with ACI 318. Precast member types that can be designed include double tees, inverted tees, spandrels, hollow core slabs, and stadia. Reinforcement can be any combination of prestressing strand, reinforcing bar, and mesh. Multiple holes can be modeled in beam webs or decks. A polygon editor is included for the design of unusual cross sections. Beam's fast and accurate computational engine includes many advanced features, such as cracked sections, strain compatibility, concrete stress-strain curves, biaxial bending, slender spandrels, and more. Output consists of a mixture of text and graphs, allowing the user to quickly converge on a workable design. In addition, Eriksson Beam can generate performance summaries, reinforcement sketches, and three-dimensional models.

—Eriksson Software, Inc., <https://erikssonsoftware.com>

W. R. MEADOWS PENCURE OTC

W. R. MEADOWS' PENCURE OTC is a dual-action, nonyellowing, acrylic curing compound for fresh, exterior, broomed concrete. It is clear, transparent, and easy to apply. PENCURE OTC forms a membrane to cure the concrete while also penetrating into the surface to help reduce the ingress of water and salts into the concrete. PENCURE OTC can be used on driveways, patios, and parking lots. PENCURE OTC minimizes crazing and shrinkage cracks common to improperly cured or uncured concrete. PENCURE OTC meets Type 1, Class A and B requirements per ASTM C309, "Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete." However, its permeable film allows moisture in cured concrete to evaporate. PENCURE OTC provides a low-gloss, satin appearance.

—W. R. MEADOWS, www.wrmeadows.com



WeatherBuild Pro

WeatherBuild® offers a suite of decision support solutions that help users to improve situational awareness and make better-informed decisions about weather events, schedule impacts, safety risks, and probable outcomes. WeatherBuild Pro is a custom, hyper-local weather analytics solution with risk management and dispute resolution tools. Activities and impacts are customizable based on your project-specific requirements. WeatherBuild Pro can be integrated with construction schedules to provide weather risk probability for each activity. The application is compatible with Oracle Primavera P6, MS Project, and Excel. Historical reports of actual weather data with event and impact analysis can also be provided. WeatherBuild Pro features integration with weather stations and data loggers.

—WeatherBuild, weatherbuild.co

Gilson Cylinder Transport Racks

Gilson Cylinder Transport Racks prevent damage to concrete strength specimens during transport and can be used to protect cylinders in curing boxes or in the HM-112 Field Curing Chest during initial curing. The HM-114 Transport Rack for 4 in. (102 mm) concrete specimens holds eight 4 x 8 in. (102 x 203 mm) concrete cylinders, with or without molds for curing and transport. Plastic racks also allow easier handling of multiple cylinder specimens. Two racks will fit in the Field Curing Chest. HM-116 Concrete Cylinder Transport Rack for 6 x 12 in. (152 x 305 mm) cylinders is also designed to fit inside the HM-112 Field Curing Chest and can hold nine 6 x 12 in. cylinders for initial curing and transport. This sturdy molded plastic rack is lightweight and dampproof.

—Gilson, www.globalgilson.com

Sika UltraCure DOT

Sika UltraCure DOT™ is the company's heaviest duty curing blanket. It features a white reflective perforated vapor barrier applied to one side to help minimize concrete overheating and maintain moisture levels. It is also available as nonperforated for vertical applications. With proper installation, Sika UltraCure DOT provides constant hydration and maintains a 100% relative humidity condition on the slab for wet curing durations up to 14 days. The curing blanket wicks itself to the concrete surface, helping to keep dust, debris, and contaminants from reaching the concrete surface and holding the blanket in place without the need to weight down the edges.

—Sika, <https://usa.sika.com>