



THOROC™ PLUG

(Formerly Preco® Plug)

Rapid-setting, cement-based water-stop mortar

Features and Benefits

- No additives needed, just add water
- Sets in 45 - 90 seconds
- Controlled set behavior with no flash set
- Nonmetallic
- Contains no calcium chloride, plaster, or gypsum
- Very rapid strength gain
- Freeze/thaw resistant
- More resistant to corrosive chemical attack from sewage than Portland cement mixes
- Resistant to "washout"

Where to Use ThoRoc™ Plug

- To stop running water or seepage through cracks in concrete sewer pipes, manholes, tanks, elevator pits, and other concrete surfaces under hydrostatic water pressure
- To provide watertight seals at manhole, invert, lateral line, and house connections
- To provide watertight seals at joints in sewer lines, reducing the possibility of infiltration or exfiltration
- To provide watertight seals in concrete conduit, tanks, wells, mines, and tunnels
- For exterior or interior use, above or below grade
- To patch construction faults in precast and cast-in-place structures
- To grout anchors, bolts
- To form water-resistant coves at the junction of floors and walls

How to Apply ThoRoc™ Plug

Surface Preparation

Concrete and masonry substrates must be structurally sound and fully cured. Loose or unsound concrete or masonry should be hammered out. Surfaces must be entirely free of oil, grease, paint, corrosion, dust, laitance, or other surface contaminants. Dampen surface to be repaired with clean water but make sure there are no standing puddles.

Mixing

Add approximately one part by volume of water to three parts of ThoRoc™ Plug and mix to a stiff consistency. Mix only enough ThoRoc™ Plug that can be placed in 1 minute.

Application

To Seal Leaks

Crack openings must be prepared by chipping out to minimum depth and width of 3/4" (19 mm). The inside of the crack should be wider than the opening to provide a good mechanical key. Avoid leaving a V opening. ThoRoc™ Plug is mixed and kneaded, then forced into the crack.

To Patch

Trowel or knead mixed ThoRoc™ Plug into cracks, voids, joints, or connection of sewer pipes, etc.

To Grout

Mix approximately one part water with 2-1/2 parts ThoRoc™ Plug by volume ensuring good dispersion of the powder in water. Pour grout into hole while setting bolts, dowels, or anchors.

Curing

Standard concrete curing procedures should be followed to prevent rapid water loss and consequent loss of properties.

Clean Up

ThoRoc™ Plug should be removed from tools immediately after use with clean water. Cured material must be mechanically removed. Hands and skin should be cleaned immediately with soap and water.

For Best Performance

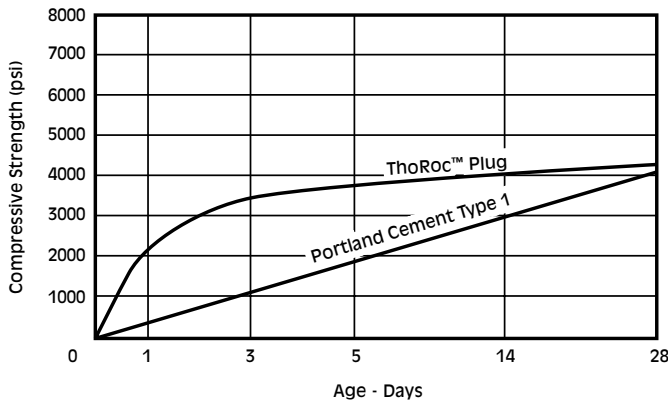
- To slightly increase working time, cool mixing water down with ice.
- Make certain the most current version of this data guide is being used; call Customer Service (1-800-433-9517) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by ChemRex® personnel are for the purpose of making technical recommendations only and are not for supervising or providing quality control on the jobsite.

Technical Data

Physical Properties

Compressive Strength

- ASTM C 109 utilizing a water/cement ratio of 0.30



ThoRoc™ Plug Bond Test Results* (Modified ASTM C 900/ASTM D 4541)

Cement sprayed/cast substrate	275 psi
90% adhesive failure of the material used to fasten the bolt to the ThoRoc™ Plug	
10% cohesive failure of ThoRoc™ Plug	
Common clay brick	150 psi
75% cohesive failure of the brick	
25% cohesive failure of ThoRoc™ Plug	

*At 65°F (18°C) and 24% relative humidity

Sulfate Resistance

When tested in accordance with test procedure ASTM C 88 used to simulate the corrosive action of sulfate in sewer environments, ThoRoc™ Plug demonstrated good resistance to deterioration.

All application and performance values are typical for the material, but may vary due to variations in the test method, conditions, and configurations.

Order Information

Packaging

ThoRoc™ Plug

- 50 lb. (22.5 kg) pail

Shelf Life

- ThoRoc™ Plug has a shelf life of 9 months when transported and stored in cool, dry conditions between 40°F (4°C) and 85°F (29°C) in the original, unopened containers.

Coverage

- 0.45 ft.³ per 50 lb. (0.01 m³ per 22.5 kg) pail.

Caution

ThoRoc™ Plug contains crystalline silica, Portland cement, calcium oxide

Risks

Product is alkaline on contact with water and may cause injury to skin or eyes. Ingestion or inhalation of dust may cause irritation. Contains free respirable quartz, which has been listed as a suspected human carcinogen by NTP and IARC. Repeated or prolonged overexposure to free respirable quartz may cause silicosis or other serious and delayed lung injury.

Precautions

KEEP OUT OF THE REACH OF CHILDREN. Prevent contact with skin and eyes. Prevent inhalation of dust. DO NOT take internally. Use only with adequate ventilation. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. SEEK IMMEDIATE MEDICAL ATTENTION. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

For more information see Material Safety Data Sheet (MSDS) for this product.

Proposition 65

This product contains material listed by the state of California as known to cause cancer, birth defects or other reproductive harm.

VOC Content

This product contains 0 g/L or 0 lbs./gallon.

For medical emergencies only, call ChemTrec (1/800/424-9300).

Limited Warranty Notice

Every reasonable effort is made to apply ChemRex® exacting standards both in the manufacture of our products and in the information which we issue concerning these products and their use. We warrant our products to be of good quality and will replace or, at our election, refund the purchase price of any products proved defective. Satisfactory results depend not only upon quality products, but also upon many factors beyond our control. Therefore, except for such replacement or refund, ChemRex® MAKES NO WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, RESPECTING ITS PRODUCTS, and ChemRex® shall have no other liability with respect thereto. Any claim regarding product defect must be received in writing within one (1) year from the date of shipment. No claim will be considered without such written notice or after the specified time interval. User shall determine the suitability of the products for the intended use and assume all risks and liability in connection therewith. Any authorized change in the printed recommendations concerning the use of our products must bear the signature of the ChemRex® Technical Manager.



ThoRoc[™]
Concrete Restoration Solutions

ChemRex[®]

Corporate Office:

889 Valley Park Drive; Shakopee, MN 55379

Customer Service: 1/800/433-9517

Technical Services: 1/800/ChemRex (1/800/243-6739)

Web Site: www.chemrex.com

