

Permaquik® 200 Crystalline Waterproofing Capillary Waterproofing Formulation

Product Description

Permaquik® 200 Crystalline Waterproofing is a capillary waterproofing formulation of proprietary blends of chemicals, quartz sand and cement. The chemicals contained in the crystalline waterproofing materials require the presence of moisture to set off a chemical reaction from within the matrix of the concrete. When combined with "free lime", these chemicals form long chained complexes, which crystallize and penetrate deeply into the capillaries of the concrete, eliminating the migration of water. Independent tests show penetration up to 2" (51 mm) in 28 days.

The crystalline process is continuous as long as moisture is present in the concrete, significantly reducing the concrete's natural porosity by filling small voids and cracks caused by shrinkage. The concrete is still able to breathe as the crystalline does not create a vapor barrier. If no moisture is present, the crystals will lie dormant until moisture reappears and then will reactivate to seal the cause of the leakage. Permaquik 200 is applied as a slurry coat on vertical interior or exterior (CIP) concrete or (CMU) block structures to create a waterproofing barrier from within the substrate. It can be applied by "broadcasting" the dry powder onto horizontal concrete surfaces at the time of initial set and power- or hand -floating the powder into the green concrete.

Once the reaction has taken place and the formulation has crystallized, these coatings are highly resistant to salts (chloride penetration), alkalis and seawater. Because of the density of the crystalline chain, the concrete is able to withstand mildly acidic conditions to provide protection in wastewater treatment plants as well as superior protection against frost damage and may also be used in sealing the joint between new and existing concrete.

Basic Uses

Few products in the waterproofing industry offer the total protection to the concrete itself that Permaquik 200 provides. Where moisture is present, there is always the danger of damage not only to the concrete but to the steel as well as interior finishes. No special below-grade protection is necessary.

Permaquik 200 provides fast, economical waterproofing for foundation walls and floor slabs, suspended or in-ground pools, and protects against spalling due to oil, salt and freeze/thaw action in parking garage floor applications.

Features and Benefits

- When applied to inside or outside surfaces, Permaquik 200 integrates and combines with the concrete from within, thus forming a barrier which cannot easily be damaged.
- The crystalline products tolerate water so there is no need to continually dry the surface before application, unlike most asphaltic, bitumen or solvent based resin systems.

Availability

Immediately available from your local Tremco Sales Representative or Distributor. For Distributor locations, visit www.tremcosealants.com.

Coverage Rates

1.3 kg/m² or 2.4 lb/yd²

200 ft² (18.6 m²) per pail in 2 passes

Horizontal dry shake method: 1 kg/m² or 1.85 lb/yd²

Packaging

Permaquik 200: 55 lb (25 kg) packed in 5-gal (20-L) pails. Also available in drums.

Colors

Grey

Limitations

- Freshly applied crystalline waterproofing systems contain water and they must not be exposed to freezing temperatures. At the other extreme, the systems must be protected from drying out too quickly in hot or windy conditions.
- Avoid prolonged contact with the skin. To minimize the risk of irritation from these alkaline materials, use rubber gloves.
- Do not mix with latex modified or hydraulic cement mortars.
- Do not paint surfaces treated with Permaquik 200 until 21 days after application, and first apply muriatic acid and water (1:5) to neutralize the surface chemicals.
- Not for use in potable water applications.

Warranty

Tremco warrants its Products to be free of defects in materials but makes no warranty as to appearance or color. Since methods of application and on-site conditions are beyond our control and can affect performance, Tremco makes no other warranty, expressed or implied, including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE with respect to Tremco Products. Tremco's sole obligation shall be, at its option, to replace or to refund the purchase price of the quantity of Tremco Products proven to be defective, and Tremco shall not be liable for any loss or damage.

Please refer to our website at www.tremcosealants.com for the most up-to-date Product Data Sheets.

NOTE: All Tremco Safety Data Sheets (SDS) are in alignment with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) requirements.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	DESCRIPTION	
Type	Crystalline Waterproofing	
Color	Grey	
Solids	1	
Application	Brush	
Cure Time	24 hr	
Thickness	2.4 lb/yd² (1.3 kg/M²)	
PROPERTY	TEST METHOD	TYPICAL VALUES
Maximum V.O.C.	Method 310	0 g/L
Flash Point	ASTM D92 Minimum 500 °F (260 °C)	
Compressive Strength	ASTM C39	3 Days 4145 psi (2857.87 N/cm²)
		7 Days 5560 psi (2833.48 N/cm²)
		28 Days 6970 psi (4805.64 N/cm²)
Water Permeability	ASTM D5084	6.6 x 10 ⁻¹² K, cm/sec
Water Vapor Transmission	ASTM E96	.012 perms
Hydrostatic Head Pressure		100' (28 M)

0316/PQ200DS-BG

Tremco Commercial Sealants & Waterproofing

3735 Green Rd
Beachwood OH 44122
216.292.5000 / 800.321.7906

1451 Jacobson Ave
Ashland OH 44805
419.289.2050 / 800.321.6357

220 Wicksteed Ave
Toronto ON M4H1G7
416.421.3300 / 800.363.3213

1445 Rue de Coulomb
Boucherville QC J4B 7L8
514.521.9555

