



The Chemical Company

PRODUCT DATA

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Cementitious
Waterproofing

TEGRAPROOF®

Crystalline capillary waterproofing
coating for concrete

Description

Tegraproof® is a crystalline capillary waterproofing coating for concrete. It is designed for coating applications both above and below grade.

Yield

Slurry coat:

330 ft² per 55 lb pail at 1.5 lbs/yd²
(30 m² per 25 kg pail at 0.83 kg/m²)

Dry shake:

200 ft² per 55 lb pail at 2.5 lbs/yd²
(18 m² per 25 kg pail at 1.4 kg/m²)

Packaging

55 lb (25 kg) pails

Color

White and gray

Shelf Life

1 year when properly stored.

Storage

Store in unopened containers at 60 to 80° F (16 to 27° C) in clean, dry conditions.

Features

- Withstands positive and negative hydrostatic pressure
- Resists de-icing salts
- Protects against sewage and industrial wastes
- Contains no chlorides
- Easy to apply
- Penetrates concrete; seals capillaries and hairline cracks

Benefits

- Dual-sided waterproofing
- Suitable for winter environments
- Suitable for use in wastewater-treatment applications
- Reduces the risk of corrosion
- Cost effective
- Remains waterproof even if surfaces are damaged

Where to Use

APPLICATION

- Concrete and block foundations
- Repairing hairline cracks
- Sewage and water treatment plants and tanks
- Newly poured concrete as a dry shake
- Underground vaults
- Subway tunnels
- Water reservoirs
- Elevator pits

LOCATION

- Horizontal and vertical
- Interior and exterior
- Above or below grade

SUBSTRATE

- Concrete and masonry

How to Apply

Surface Preparation

EXISTING CONCRETE

1. Surfaces must be clean and sound.
2. Waterblasting is preferred for surface preparation because it mechanically cleans and roughens the surface, is environmentally safer, and leaves the surface saturated with water.
3. Remove all oil, dirt, laitance, and other contaminants. If acid etching must be used, follow recommendations and procedures in ASTM D 4260 and ASTM D 4262.
4. Surfaces must be dampened before application of Tegraproof®.



Technical Data

Composition

Tegraproof® is a crystalline capillary waterproofing system for concrete.

Test Data

PROPERTY	RESULTS				TEST METHODS
	3 days	7 days	28 days	56 days	
Chemical resistance, gram weight change					ASTM C 267
Control samples	0.0	0.0	+0.1	+0.3	
Acid exposed	+0.1	-0.2	-1.1	-4.8	
Salt exposed	+0.3	+0.8	+0.6	+0.7	
Compressive strength, psi (MPa)					ASTM C 109
Control samples	2,110 (14.6)	3,870 (26.7)	5,200 (35.9)	5,780 (39.9)	
Acid exposed	2,280 (15.7)	3,540 (24.4)	5,160 (35.6)	5,500 (37.9)	
Salt exposed	2,020 (13.9)	3,490 (24.1)	5,540 (38.2)	5,720 (39.4)	
Permeability test,					CRD C 48
Negative direction:	Virtually impermeable; no visible degradation; no water flow. Slight dampening after 420 hrs at 200 psi hydrostatic pressure.				
Positive direction:	Virtually impermeable under 125 psi hydrostatic pressure. After 300 hrs at 200 psi, flow measured 0.075 cm ³ /hr over final 120 hours.				

All application and performance values are typical for the material, but may vary with test methods, conditions, and configurations.

NEW CONCRETE

1. After forms are stripped, waterblast or acid etch as described above to remove form oils and laitance. Surface must be left damp for application of Tegraproof®.
2. Route out construction joints, cold joints, and nonleaking cracks greater than 1/64" wide to a minimum 1 by 1" (25 by 25 mm) in sound concrete. Routing should create "U" shape. Saturate routed area with water and leave damp for application of Tegraproof® mortar.
3. Rout leaking cracks as described above to 1" (25 mm) wide by 1-1/2 – 2" (37 – 51 mm) deep in sound concrete. Saturate routed area with water and leave damp for application of Thoro® Plug.

Mixing

TEGRAPROOF SLURRY COAT

1. Mix 1 part clean potable water to 2-1/4 – 2-1/2 parts powder by volume or 2.25 gallons (8.9 L) of water to one 55 lb (25 kg) pail.
2. Mix thoroughly with a slow-speed drill and a paddle.
3. For larger batches, use a mortar mixer.
4. Do not mix more material than can be used in 20 minutes at 75° F (24° C) and 50% relative humidity.
5. If mixture thickens, restir to reduce consistency. Do not add extra water.

TEGRAPROOF MORTAR

1. Add sufficient clean, potable water to powder to produce a stiff trowelable mortar.
2. Mix thoroughly with a slow-speed drill and paddle or use a mortar mixer for large batches.
3. Do not mix more material than can be used in 20 minutes at 75° F (24° C) and 50% relative humidity.

Application

SLURRY COAT

1. Tegraproof® slurry coat may be applied with a brush (synthetic bristle), broom, or plaster sprayer at a rate of 1.5 lbs/yd² (0.83 kg/m²). Work slurry well into openings, rough surfaces, joints, and routed out areas.
2. Apply second coat, when required, after first coat has reached initial set (usually within 1 hour). If first coat has dried out, moisten surface before applying second coat.

MORTAR

1. Tegraproof® mortar is applied with a trowel or spatula at a rate of 0.85 lb per 1 lineal foot in a 1 by 1.5" (25 by 38 mm) configuration. Apply mortar to cracks, holes, reglets, and coving areas.
2. After areas are primed with first coat of Tegraproof® slurry, apply mortar in areas not greater than 1/2" (13 mm). Allow mortar to reach initial set before adding additional layers.

DRY SHAKE FOR NEWLY POURED CONCRETE:

1. Use Tegraproof® directly from container. Wearing rubber gloves, distribute the powder evenly by hand over freshly poured concrete at 2.25 – 2.5 lb/yd² (1.2 to 1.3 kg/m²) before final floating operation.
2. Two applications are recommended to obtain stated physical properties. Distribute the powder at one-half the recommended rate in 1 direction, and the other half at a right angle to the first application. Keep hand as close to the surface as possible to prevent material from blowing away. For large areas, a rotary type spreader may be used.
3. Float slab and trowel to final finish.

Curing

1. Tegraproof® must remain moist to allow the crystals to form. All Tegraproof® applications must be kept moist for a minimum of 48 hours. After initial set, moist cure Tegraproof® using water spray. Fog-spray the treated surface 3 – 4 times daily for the 48-hour period. For warmer climates, more frequent spraying may be required.
2. Protect freshly applied Tegraproof® from extreme weather conditions, such as rain, strong winds, high temperatures and freezing for a period of not less than 48 hours after application.
3. For certain applications, Tegraproof® can be wet cured for 24 hours, followed by application of an ASTM C 309-approved water-based curing agent. Contact BASF Technical Service when curing using this method.

Clean Up

Before curing, Tegraproof® may be cleaned from tools and other surfaces with water. Cured material must be removed mechanically.

For Best Performance

- Add only clean potable water to Tegraproof®.
- Tegraproof is not designed as a decorative finish.
- Test and evaluate before applying a topcoat over Tegraproof.
- Not recommended for application at temperatures below 40° F (4° C).
- Full activation and effectiveness may require 2 – 3 weeks beyond application.
- Protect surfaces from foot traffic for 48 hours or heavy traffic for 7 days.
- Follow accepted curing procedures for optimum performance.
- Make certain the most current versions of product data sheet and MSDS are 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 BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

Health and Safety

TEGRAPROOF®

Warning!

Contains portland cement, crystalline quartz silica, iron oxide, limestone, anhydrite, titanium dioxide, calcium oxide and magnesium 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.

Refer to Material Safety Data Sheet (MSDS) for further information.

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

0 lbs/gal or 0 g/L, less water and exempt solvents.

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

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