



Retarder

MBT X-POZ-R

Water based retarder for exposed-aggregate concrete

Description

MBT X-POZ-R is a water-based top surface or form retarder used to produce uniform exposed-aggregate finishes on architectural or ornamental concrete.

Features

- Water based—no solvents
- Excellent top surface results even for first time users
- No mold release needed when used as form retarder
- Wide range of etches available

Benefits

- Eliminated fumes and flammability problems
- Economical—pennies per square foot
- No need to wash off top surface same day
- May also be used as a form retarder on small appliances

Performance Characteristics

- Water based—no solvents
- Excellent top surface results even for first time users
- No mold release needed when used as form retarder
- Wide range of etches available

Guidelines for Use

MIXING

Mix thoroughly before use with a mechanical mixer. The retarder can also be mixed by pouring back and forth between buckets.

TOP SURFACE APPLICATION

Paint sprayer must be used. MBT X-POZ-R may be thinned with water up to 20% to accommodate spraying, but mix thoroughly.

SURFACE PREPARATION

Pour concrete and screed, float or trowel level. For a denser and more uniform face, sprinkle extra aggregate onto surface and work in with trowel or roller, making sure the aggregates are flush with the surface and surrounded by cement paste. Do not overwork the surface with a steel trowel as this tends to seal the top surface, thus restricting the penetration of the MBT X-POZ-R.

APPLYING

As soon as surface water has disappeared [normally no more than 30 minutes], spray until the color of the retarder just "hides" the area to be exposed. Protect areas adjacent to the job from overspray which may stain these areas. Apply at the rate of 200 ft²/gal [4.9m²/L] [8 mils on wet film thickness gauge.]

SAMPLES

Skill and practice are necessary to produce any high quality architectural finish. Samples and test mock-ups duplicating actual production conditions are essential to obtain representative finish for approval prior to commencing production. Some important variables that should be controlled as close to actual cast conditions include: retarder coverage rate and method of application, mix design and

slump, admixtures, heat of plastic and cured concrete, vibration, piece thickness, length of time in form and method of cleaning. This is especially important with light etches which are particularly affected by changing conditions. Change in mix design [cement, sand, aggregate, water], admixture content, temperature, and any other factors influencing compressive strength development should be kept to a minimum. For applications on forms, or if white cement is used in a face mix, consult a Master Builders representative.

Exposing the Aggregate

Under normal conditions, after the concrete has set overnight, direct a jet of water from a garden hose over the surface of the slab while scrubbing with a coarse floor brush to remove the retarded concrete paste. The concrete not in contact with MBT X-POZ-R will set firmly to resist erosion; the embedded exposed aggregates will hold securely when the concrete has fully cured. Since retarded concrete will eventually harden, the surface should be checked periodically to determine degree of etch by washing a small area. When the temperature is high, or high early strength cement is used, check the surface earlier. If the depth is excessive, wait a couple of hours and check the etch again. To brighten the color of the aggregate, prevent staining and waterproof the surface, MBT EA-Sealer or MBT EA-Sealer WB are recommended.

FOR APPLICATION TO FORMS OR FORMLINER

May be applied by brush, paint sprayer or roller.

SURFACE PREPARATION

Form or formliners must be clean, dry, and non porous. Seal wood or concrete forms with MBT Form-Cote, specially formulated for use under chemical retarders. Once MBT X-POZ R has been applied to the form or formliner, it must be protected against rain, condensation, accidental contact with water, etc.

Applying

Apply a thin, uniform coat by brush, paint sprayer or roller. Normally, thinning is unnecessary, but if the pail has been left open and the contents have thickened, thin with water (up to 20%). Any time after MBT X-POZ is dry (30-60 min. depending on temperature and humidity), the concrete or face mix may be placed in the form. Apply at the rate of 200 ft²/gal (4.9 m²/L) (8 mils on wet film thickness gauge.)

PLACING

Place face concrete very carefully, making sure you place "mud on mud" (never dump face concrete in piles and bring them together.) Compact face mix with hand jitterbug, mechanical grid vibrator or vibrating bull float. Place back-up concrete taking care to break the fall so that it will not displace the face mix.

EXPOSING THE AGGREGATE

When the panels are lifted, the matrix can be removed by one or more of the following methods: wire brush and water, high pressure water spray, or sand cleaning. The most efficient method can be determined by field trials. Panels should be cleaned the same day they are lifted. Skill and practice are necessary to produce any high quality architectural finish. Test mock-ups duplicating field conditions are essential for proper results. A good program is to have the same workmen who will produce the finished product make the test panels.



Retarder

MBT X-POZ-R

Water based retarder for exposed-aggregate concrete

COLOR-CODED

The material in every container of MBT-X-POZ-R retarder is color-coded to show specific degrees of penetration [see chart]. The lid of each container bears the same color as the material inside or will be white with a sticker designating the color. The label contains easy-to-follow instructions. Special mixtures are available for specific applications.

Color of Retarder	Depth of Etch	Recommended for Use With the Following Size Aggregates
Lite	x-Light	Sandblast/Acid etch
Yellow	Light	1/8-1/4 in.
Lilac	Light	1/4-3/8 in.
Pink	Medium	3/8-1/2 in.
Tan	Medium	1/2-5/8 in.
Brown	Deep	5/8-3/4 in.

Recommendations

TEMPERATURE

MBT X-POZ-R Will freeze at low temperatures. Allow to thaw and mechanically mix to bring back to original consistency. Styrofoam form liners may be coated with silicone to prevent adhesion of MBT X-POZ-R. In conditions of high outside temperatures or wind, concrete should be covered with black plastic sheeting. Recommended maximum concrete temperature is 110 °F (43 °C).

HANDLING AND STORAGE

Store in a dry area at 40-110 °F (4-43 °C). Keep containers tightly closed. Do not store in metal spray equipment more than 2-3 h or in direct sunlight.

SHELF LIFE

MBT X-POZ-R admixture has a minimum shelf life of 12 months. Depending on storage conditions, the shelf life may be greater than stated. Please contact your Master Builders representative regarding suitability for use and dosage recommendations if the shelf life of MBT X-POZ-R admixture has been exceeded.

Packaging

MBT X-POZ-R is packaged in 5 gal (18.9 L) plastic containers.

Related Documents

Material Safety Data Sheet—MBT X-POZ-R.

Additional Information

For additional information on MBT X-POZ-R, contact your Master Builder representative.

CONFILM®

Evaporation reducer

DESCRIPTION

CONFILM® evaporation reducer helps produce high quality concrete flatwork and reduces surface moisture evaporation. Because CONFILM® reduces evaporation, it is especially effective in combating rapid drying conditions [high concrete and/or ambient temperatures, low humidity, high winds, direct sunlight, work in heated interiors during cold weather, etc.]

WHERE TO USE CONFILM®

- Concrete surfaces where the evaporation rate exceeds the rate of bleeding of the concrete
- Air-entrained and on-air entrained concrete
- Silica fume concrete
- Concrete containing fly ash
- All MBT® Protection and Repair cementitious products except MASTERPLATE® DPS safety floor hardener

GUIDELINES FOR USE

Dosage: One gal (3.8 L) of Confilm mixed with nine gal (34.1 L) of water yields 10 gal (37.9 L) of sprayable solution. This diluted amount of Confilm (1:9) should cover 2,000-4,000 ft² (186 to 372 m²) of fresh concrete. If more than one application of Confilm is made, as under adverse drying conditions, the quantity required will be increased accordingly.

Mixing: Depending on the application, Confilm can be mixed at a ratio of up to one part Confilm concentrate to nine parts of water. Agitate Confilm before mixing with water. Re-agitate mixed materials before applying.