



The Chemical Company

PRODUCT DATA

3 03 40 00 **Precast Concrete**

MBT ULTRA-COTE

One-coat form retarder for exposed-aggregate

Description

MBT Ultra-Cote is a one-coat chemical retarder specifically designed to economically produce uniform exposed-aggregate finishes on architectural precast applications. The abrasion resistance and sustaining properties make it ideal to produce exposed-aggregate concrete under a wide variety of job site conditions.

Yield

250 - 300 ft²/gal (6.1 - 7.5 m²/L)

Packaging

5 gal (18.9 L) steel pails

Color

The material in every container of MBT Ultra-Cote retarder is color-coded to show specific degrees of penetration. Each container bears the name of the color on the label. The lid is also colored to match the material inside.

See Chart on page 2.

Shelf Life

1 year when properly stored.

Storage

Store in unopened container in a cool, clean, dry area between 40 and 80° F (4 and 27° C). Keep containers tightly sealed after opening to maintain shelf life freshness. Protect from freezing.

In case of spillage, absorb and dispose of in accordance with local, state and federal applicable regulations.

Features

- Applied in one coat, with no MBT Mold Release or MBT QD required
- Highly abrasion resistant
- Good heat resistance
- Controlled penetration delays the set of surface only
- Wide range of etches available
- Color-coded
- High-pressure water washing
- Light etch available

Benefits

- Economical and labor saving
- Suitable for a variety of applications
- Suitable for a variety of environments
- Consistent water-washed, exposed aggregate the surfaces
- Variety of exposed aggregate appearances
- Easy identification
- Ease and speed of production
- Alternative to sand blasting; time and labor saving

Where to Use

APPLICATION

- Architectural prestressed concrete
- Architectural precast concrete
- Cast stone
- Cast-in-place

LOCATION

- Vertical and horizontal

SUBSTRATE

- Steel forms
- Fiberglass forms
- Concrete forms
- Wood forms
- Styrofoam forms

How to Apply

Surface Preparation

PLANT USE

Forms must be clean, dry and non-porous. Seal porous forms of wood or concrete with MBT Form-Cote, specially formulated to use under a retarder.

CAST-IN-PLACE

MBT Ultra-Cote should be applied to forms that are non-porous. Use MBT Form-Cote to seal wood.

Mixing

NOTE: Mixing this product increases the generation of flammable vapors. Mix product in an adequately ventilated area to ensure safe handling during this process.

Stir the retarder well before using. Use a mechanical drill and Jiffy-type mixer (being sure to scrape the sides and bottom of the container) or pour back and forth between two containers to ensure that any settled materials will be thoroughly dispersed.



Color Coding Information

COLOR	DEPTH OF ETCH	AGGREGATE SIZE* IN(MM)
Yellow	Extra Light	1/8 – 1/4 (3 - 6)
Lilac	Light	1/4 – 3/8 (6 -10)
Pink	Medium Light	3/8 – 1/2 (10 -13)
Tan Medium	1/2 – 5/8 (13 - 16)	
Brown	Deep	5/8 – 3/4 (16 - 19)
Grey	Deepest	3/4 + (19 +)

* Recommended aggregate size.

Application

PLANT USE

1. A form release agent should be applied to all surfaces not receiving a retarder.
2. Apply MBT Ultra-Cote in a thin uniform coat by spray, brush or roller at a rate of 250 – 300 ft²/gal (5 mils on wet film thickness gauge). This coverage should be achieved by applying one light coat with a short (3/8") nap roller. Allow to dry for 10-20 minutes or until dry to touch.
3. Over application will make form clean up more difficult, but will not affect the depth of etch. If the placing of the concrete is delayed for an unusual length of time, protect the retarder surface from moisture.
4. When the element is lifted or the forms are removed, the retarded surface concrete is easily removed by sandblasting, high pressure water-washing or dry-brushing. The retarder film will remain on the mold. After waiting 30 minutes, the film should be easily removed by scraping or dry-brushing it with a broom, hand brush or dry rag.

CAST-IN-PLACE

1. Place concrete in accordance with good construction practices.
2. On vertical concrete over five feet, use an elephant trunk or jacket to reduce abrasion on the retarder film.
3. Concrete should be placed in lifts of approximately 2 to 3 feet. Vibration should follow closely behind and penetrate into the previous lift. Keep vibrator away from retarded sides. Slow concrete placement will exaggerate lift lines.
4. Placement should be smooth and quick with minimal delay. Once the section is vibrated, it should not be disturbed. Contact a BASF representative for more specific details.

Clean Up

Clean tools and equipment with MBT Solvent 106 or commercial solvent. Clean hands and skin with soap or industrial hand cleaner, not solvents.

Mock Up

- 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 a 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.
- Changes in mix design (cement, sand, aggregate, water), admixture content, temperature and any other factor influencing compressive strength development should be kept to a minimum. If white cement (Type III) is used in the face mix, consult a BASF representative.

For Best Performance

- The mold should be thoroughly cleaned of the retarder prior to reapplication for the next pour. Residual dust may cause contamination to other formwork.
- Surfaces coated with MBT Ultra-Cote must be protected from water (rain, condensation, etc.)
- Recommended maximum concrete temperature will be determined during the production of mock-up test panels. These test panels should simulate actual concrete temperatures to determine depth of etch requirements during final production.
- To use MBT Ultra-Cote on a vertical application, tilt-up project, styrofoam form or polyurethane formliners, please contact a BASF representative.
- 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 versions.
- 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

MBT ULTRA-COTE

Warning

MBT Ultra-Cote contains naphtha, light aliphatic; xylene; and ethylbenzene.

Risks

FLAMMABLE LIQUID AND VAPOR. May cause skin and eye irritation. Ingestion may cause irritation. Inhalation of vapors may cause irritation and intoxication with headaches, dizziness and nausea. Reports associate repeated or prolonged occupational overexposure to solvents with permanent brain, nervous system, liver and kidney damage. Suspect cancer hazard. Contains material which may cause cancer. Risk of cancer depends on duration and level of exposure. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

Precautions

KEEP AWAY FROM HEAT, FLAME AND SOURCES OF IGNITION. Vapors are heavier than air. Keep container closed. Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Avoid breathing vapors. DO NOT take internally. 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.

Proposition 65

This product does not knowingly contain materials listed by the State of California as known to cause cancer, birth defects or other reproductive harm.

VOC Content

497 g/L or 4.14 lbs/gal, less water and exempt solvents.

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

**BASF Construction Chemicals, LLC –
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