

THORO[®] STRUCTURITE[™] PRIMER

One component, anti-corrosion primer for reinforcement

Description

THORO[®] STRUCTURITE PRIMER is a blend of Portland cements, selected well graded fine filler, corrosion-inhibiting admixture, and redispersible polymer in powder form. Mixed with water, THORO[®] STRUCTURITE PRIMER forms slurry for application by brush to clean exposed reinforcement. It cures to form a white coating.

Uses

As an anti-corrosion primer for steel reinforcement before concrete repair. THORO[®] STRUCTURITE PRIMER is recommended for use where the reinforcement is within 10mm of the finish surface or where chlorides are present such as:

- Residential and commercial buildings
- Water-treatment facilities
- Parking garages, bridges & via-ducts
- Where EMACO cementitious repair materials will be applied

Advantages

- Excellent rust inhibiting properties
- High bond strengths – excellent adhesion
- Not a bond breaker to rebar or concrete
- High alkalinity level similar to concrete
- Chloride/water resistant
- One component, consistent quality assured
- Cures in damp enclosed areas
- No wastage, Saves cost & time
- High visibility colour – white
- Easy to use
- Solvent free - environmentally safe

Typical Properties

Aspect	: White powder
Water/Powder ratio, by weight	: 0.31
Mix density	: 1.85 kg/litre
Pot life	: 30 Minutes
Touch Dry Time	: 10 Minutes at 25°C
Overlay time	: 60 Minutes at 25°C
Abrasion resistance (ASTM D4060, CS17 wheel)	: <300 mg/1000 cycles
Adhesion to steel (ASTM D4541)	: > 5 Kg/cm ²

Specification Clause

The anti-corrosion primer for steel reinforcement shall be THORO[®] STRUCTURITE PRIMER, a single component polymer-modified, cement-based compound. The primer shall be formulated to provide dual protection of a polymeric barrier and an integral

corrosion-inhibiting system. The primer shall exhibit quick drying within 10 minutes and shall have adhesive bond strength greater than 5 Kg/cm² when tested as per ASTM D4541. The product shall exhibit good abrasion resistance by maintaining less than 60 mg/1000 cycle wear loss when subjected to ASTM D4060, CS 17 wheel on Taber abrasion machine.

Directions for use

Substrate preparation

Remove deteriorated concrete around rusting rebar to expose sound concrete. The clean substrate must be alkaline (pH above 9.5) and free of harmful salts, oil, rust, dust, and other contaminants. Remove rust and mill scale by grit blasting. Blast steel to white metal. Follow grit blasting with vacuuming or oil-free dry-air blast.

Mixing

Each kilogram of THORO[®] STRUCTURITE PRIMER will require approx. 0.31 litres of clean water. DO NOT add any other liquid or powder.

Gradually blend the powder into the water vigorously with a trowel or paddle until a lump free, butter-like consistency is obtained.

Allow the THORO[®] STRUCTURITE PRIMER mix to stand for 5 minutes for full saturation to take place. Remix before use. Do not re-temper.

Placing

Do not apply when the temperature is below 5°C or expected to fall below 5°C in the next 24 hours.

In hot weather, condition THORO[®] STRUCTURITE PRIMER at 21°C for 24 hours and use chilled water to extend the pot life

Do not apply to frozen or frost covered surfaces. Apply to the full circumference of the prepared reinforcement using a soft paint brush.

A film thickness of approximately 1 to 2 mm should be built up in two coats, allowing 30 minutes to harden between coats at 20°C, longer at cooler temperatures.

Allow THORO[®] STRUCTURITE PRIMER slurry to cure for 30 to 60 minutes prior to the application of the repair mortar.

Watch points:

- If effective cross section of rebar is lowered by more than 20% of original after cleaning, it may have to be replaced.
- Do not wait longer than 7 days before applying cementitious repair products over THORO® STRUCTURITE PRIMER.
- This product is not intended as a bonding agent between old concrete and new repair materials, please consult BASF representative.

Curing

Protect from rain or water until set.

Cleaning:

Clean tools and hands with soap and water before product cures. After cured state, mechanically remove material from tools.

Coverage

1.4 ~ 1.6 Kg/m² at 1mm thickness

10 - 12 running metres of 12mm diameter re-bar per Kg at 1mm average thickness

Dia of rebar	Coverage (m/kg)
8 mm	20 – 25
12 mm	12 – 16
16 mm	10 – 12
20 mm	8 – 10
25 mm	6 – 8
32 mm	5 - 6

Packaging

THORO® STRUCTURITE PRIMER is available in 1kg & 5 kg Packs

Storage and Shelf life

Store under cover, out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air-conditioned environment.

Shelf life is 6 months when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice please consult BASF's Technical Services Department.

Safety precautions

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapour until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use. Do not reuse containers for storage of consumable item. For further information refer to the material safety data sheet. MSDS available on demand or on BASF construction chemicals web site.

Note

All BASF Technical Data Sheets are updated on regular basis; it is the user's responsibility, to obtain the most recent issue.

Field services where provided, does not constitute supervisory responsibility, for additional information contact your local BASF representative.

Disclaimer

Whilst any information contained herein is true, accurate and represents our best knowledge and experience, no warranty is given or implied with any recommendations made by us, our representatives or distributors, as the conditions of use and the competence of any labour involved in the application are beyond our control.

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