



Coating, Chemical & Design Solutions Protecting Assets & Infrastructure

SURFACER 1000 1K Primer

Single-component MDI moisture-curing primer for porous substrates

Technical Data Sheet (rev 2023)

Description:

1K MDI low viscosity 100% solid (solvent-free) primer for concrete is essentially a **single-component, moisture-curing isocyanate primer** designed to penetrate, seal, and chemically bond to porous mineral substrates before polyurethane or polyurea systems are applied. Can also be utilised under other 2k solvent epoxies and solvent-based waterproof membrane coatings.

Properties/ Applications:

- Based on liquid **MDI (methylene diphenyl diisocyanate)** isocyanate
- Reacts with:
 - Ambient moisture
 - Substrate moisture
 - Residual hydroxyl groups in concrete
- Forms a polyurethane/urea network in-situ (no mixing required)
- Simplifies site application /vs 2K epoxy primers
- Deep penetration into concrete pores
- Ideal for joint repair, floor coatings, and elastomeric polyurethane topping systems
- MDI is widely used as the reactive isocyanate component in polyurethane coatings, adhesives and primers, providing excellent inter-coat chemical adhesion for 2k topcoats as well as strong mechanical bonding
- Provides capillary penetration into porous substrates such as concrete and asphalt
- Typical viscosity range ~80–200 mPa·s
- Syrup like flow-behaviour for ease of application in a thin coat
- 100% solids (no VOC), assisting work site and environmental safety
- No solvent evaporative film shrinkage
- Excellent film integrity (thicker effective primer layer)
- Low viscosity improves wetting and reduces material consumption during priming.

Why this matters:

- Densifies weak joint edges
- Reduces dusting
- Strengthens friable substrates before elastomer placement

- Excellent adhesion to concrete, mortars, screeds, asphalt, render, stone, timber, steel, CFC sheeting, and Villa bond
- Typical strong adhesion on concrete. This is critical in 2k Floor coatings and PU Elastomeric fillers for concrete joint repair, flexible joint sealants, and polyurea coatings
- Recoat in 30 minutes (not hours or days like other generic primers)
- Excellent wetting of subsequent PU overcoats
- Strong chemical interlock (within re-coat window)
- Red indicator disappears to show readiness for top coating (usually 30 min @ 25 °C)

Key functional behaviour:

Reactive Surface Sealing & Moisture Tolerance

- Reacts with surface moisture → forms polyurea/PU film
- Seals capillaries and micro-porosity
- Improves waterproofing of the substrate interface

MDI systems show strong moisture resistance and adhesion performance compared with other traditional resin systems.

This is particularly beneficial for:

- Damp concrete slabs
- Car park decks
- External joint repairs

Surface Preparation & Application:

Ensure the surface is structurally sound, dry, clean and free of contaminants. Repair any holes or non-structural cracks. Contact a Crest Cormix representative for specific advice. Note: this material, along with our other specific topcoat or filler repair systems are ultimately designed for qualified or experienced specialist applicator/ flooring or joint sealing contractors.

SURFACER 1000 product has a 30-minute recoat window (maximum recoat: 24 hours). The product has a tinted red indicator for easy control of application thickness. Only a light single coat is recommended. Apply by brush, roller or conventional spray (short nap rollers) light single coat at 0.17 litre's/ Sq m.

Typical Physical Characteristics (Representative):

- Appearance: Clear Red coloured liquid
- NCO content: - 42%
- Density: - 1.16–1.23 g/cm³
- Viscosity: - 50-150 mPa·s
- Isocyanate (NCO) value -24%

Packaging:

20 Litre Pails / 5 Litre Screw Tops.

Health and Safety Advice:

Refer to Crest Cormix Pty Ltd for SDS documentation.

Storage & Handling Precautions:

Containers of this product should be kept properly closed (tightly) and stored indoors in well ventilated area under normal factory conditions at temperatures of ideally 15-30°C.

Storage at temperatures above 50°C is not recommended since this can accelerate the formation of insoluble solids and also increases the rate of viscosity increase on extended storage. Under recommended storage conditions in unopened, sealed containers (e.g., steel pails), this product should have a storage life of 12 months.

Preferably, use full pails of material to avoid part-filled drums being contaminated by moisture. If the drums are exposed to moist air or water, they should not be resealed. Reaction with water leads to gas evolution, with possible pressure buildup.

Partially used containers should be purged with dry nitrogen to prolong storage stability. Preferably, part-used containers should be filled into smaller containers to their maximum volume and purged with dry nitrogen for maximum storage stability.

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DISCLAIMER

Performance data is achieved through testing in accordance with International Standards. Testing by others may result in different results from those published as a result of external factors such as poor sampling, incorrect mixing, varying temperatures, varying substrate moisture, curing, crushing procedures etc ..

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