TECHNICAL DATA SHEET

ShieldPrime CV

ShieldCrete®

Epoxy Based High Solids Primer

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Product Description

ShieldPrime CV is 100% Solids moderately fast setting, high adhesion, intercoat primer system designed to improve adhesion between a range of products including elastomeric coatings, metal, rubber, PVC, stainless steel and many other substrates.

It is an integral part of the BeltShield® conveyor belt repair system due to its amazing ability to adhere to rubber and its ability to be tailored to specific site constraints and compatibility in a wet-on-wet application with a polyurea top-coat.

It can be applied over correctly prepared bare steel surfaces, fiberglass, zinc coated steel, aluminium, polyester fillers, and baked acrylic enamel.

Properties

Volume Solids	100%
Mixing Ratio	1:1 by weight / volume
Pot Life	15-20 minutes @ 25°C
Setting Time	Thin film set time is approximately 45 minutes At 25°C and 50% humidity
Recoat Interval	Top coat dependent, but can generally be top coated while wet if undiluted with solvent. Max recommended recoat window of 24 hours at 25°C and 50% relative humidity.
Mixed Viscosity	Approximately 12,000 cps heating above 50°C significantly improves viscosity.
Maximum recommended substrate temp during application	80°C Contact us for higher
Service Temperature (Max)	150 °C
Colors	Haze to white
Packaging	Available in 4 kg and 8.6kg, kits. Larger on special order.
Coverage	~8-10 m² per kg. mix approximately per coat @ 100 microns
Specific Gravity	Part A = 1.12, Part B = 1.06

Application Areas

- ✓ Airports
- ✓ Hotels and Casinos
- ✓ Power Plants
- ✓ Residential Applications
- ✓ Structural Steel
- ✓ Fertilizer Plants
- ✓ Warehouse Flooring
- ✓ Cold Storage Facilities
- ✓ Mining/Landfill Heap/Leach Containment
- ✓ Marine Environments
- ✓ Paper & Pulp Mills
- ✓ Primary Containment
- ✓ Secondary Containment
- ✓ Trafficable Parking Decks
- ✓ Potable Water
- ✓ Wastewater Treatment
- ✓ Food Processing Plants
- ✓ Geotextile Rehabilitation Composite

Benefits

Abrasion Resistance
The balance of physical properties inherent in this primer provides outstanding abrasion resistance.

Excellent Adhesion to Difficult Substrates
Extreme adhesion to difficult substrates such as rubber, polyurea, non-ferrous metals, etc.

Toughness and Flexibility
The exceptionally high tensile strength of this product provides protection from mechanical damage and resistance to peeling of the top coat.

Increased Productivity and Economy
This product maybe sprayed, rolled or brushed and can be adjusted with mix ratio or solvents to adjust workability.

Safety
This product contains no volatile or flammable solvents. This reduces hazards during transport, storage, and application.

Features

- ✓ Odourless
- ✓ High Solids
- ✓ Adhesion to difficult substrates
- ✓ Used for the BeltShield® system
- ✓ Non Solvented
- ✓ Low viscosity
- ✓ Excellent adhesion
- ✓ Adjustable open time

Application Guidelines

Mixing

The volume mixing ratio is 1-part Side-A Brown Liquid to 1 part Side B White Liquid. ShieldPrime CV Side-A and Side-B should be thoroughly mixed individually prior to combining to ensure a homogeneous material. The combined components should be thoroughly mixed using mechanical mixer at medium speed or for at least 1-2 minutes if mixed by hand.

This product can be thinned using Toluene (best for running belt applications) or Xylene. Do not thin any more than 10%. We recommend no more than 5%.

Surface Preparation

The surface should be dry, smooth, and structurally sound. Abrasive blast, mechanically clean or buff (rubber) remove all dust and open the surface. For metal, abrasive blast to SA2.5 with a profile to suit the application specification.

New rubber should be thoroughly cleaned with hexane solvent to enable adhesion. We caution against use on new rubber as the newly vulcanised rubber can interfere with adhesion even with the hexane wash.

Equipment Clean-Up

Equipment should be cleaned with an environmentally safe solvent, as permitted under local regulations, immediately after use.

Application

This product can be applied using an airless sprayer (recommend a plural component heated machine), brush, or Phenolic resin core roller. Allow

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ShieldPrime CV to become tack free before applying the coating. In some cases (conveyor belts for instance) a wet-on-wet application is possible.

Recommended surface temperature should be greater than 10°C and at least 3°C above the dew point. Higher temperatures and/or high humidity will accelerate the pot life. Use caution in batch sizes and thickness of application. Low temperature and/or low humidity extend the cure time.

Spraying through an airless

- Due to its viscosity, it is recommended to spray through a plural component machine with heaters and a static mixer within 3m of the gun, including solvent purge system.
- The leg volume is ideally 100-150cc for the plural machine.
- Recirculate the product through the system to heat it up to between 50-80°C (recommended, it can be less than this if you achieve the desired consistency and spray pattern).
- Ensure the product is spraying properly prior to spraying on the final substrate.
- If mixing the product prior to pumping through a single component airless, be sure to flush the system well before the product starts to gel as it sets very, very hard.

Colours

Standard haze/white upon spray, curing to clear. Custom colours can be produced on request but may require additional lead time and price premium. Contact your local distributor for availability.

This product is intended to be used as a primer only.

Storage

The product has a minimum shelf life of 12 months if stored in the original, undamaged containers, under shelter, with a maximum temperature of 40°C and minimum of 10°C.

System Specification

Refer to ShieldCrete® technical representatives or distributors for recommendations based on your specific application.

Recommended Thickness

Recommended minimum thickness is 100microns. Target thickness of 150microns is recommended. Adequate performance is typical from 50-250microns.

Number of Coats

Sometimes two or more coats are applied on porous substrates. The additional coats should be applied as soon as possible after the preceding coat has gone tack-free, but no longer between coats than the specified recoat window.

Contact your distributor for reactivation requirements for coating over cured product. Generally, abrasion is required before re-priming.

Topcoat

This primer is compatible with a wide range of products including but not limited to polyurea, polyurethane, polyaspartic, epoxy, ceramic, and acrylic. Contact your local distributor for specific requirements.

Storage and Handling Precautions

Please refer to SDS.

DISCLAIMER

The information provided herein, especially recommendations for the usage and the application of our products, is based upon our knowledge and experience. Due to different materials and equipment used, as well as varying working conditions and environments beyond our control we strictly recommend carrying out intensive trials to test the suitability of our products regarding the required processes and applications. This data sheet is provided free of charge, and we do not accept any liability regarding the above information or regarding any verbal recommendation, except for cases where we are liable of gross negligence or false intention.