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Product Data Sheet For:

PlexiSure 170

DESCRIPTION

Solvent-less flexible elastomeric urethane membrane designed to be used as a crack filler, joint filler and water proofing system. The resilient property provides excellent resistance against chipping, gouging, cracking and it can be applied to any new or restored concrete surface. It is excellent for expansion/contraction. Can be coated in as little as 2 hours.

TYPICAL USES

Underlayment for aisle ways in heavy manufacturing facilities
Machine shop floors
Chemical processing plant floors
Food processing plant floors
Any industrial plant

FEATURES

Solvent-less – No toxic fumes
Fast setting – with 2 to 4 hours
Flexible over a wide range of temperatures
Excellent abrasion resistance
Provides a long lasting, high build film
Eliminates reflective concrete cracking

PACKAGING

PlexiSure 170 is a 5 gallon kit consisting of a 4.3 gallon pail of Part –A and 0.7 gallon can of Part B.

STORAGE AND CONDITIONING

Material containers should always be stored indoors in a minimum temperature range of 68°F – 85°F (20°C – 29°C) and for at least 24 hours prior to usage the minimum storage temperature should be 75°F– 85°F (24°C – 29°C) to ensure proper mixing and application properties.

SURFACE PREPARATION

General For All Substrates

The surface must be free of dust, oil, grease, old coatings or sealers. Structural defects such as cracks or breaks in the surface to be coated shall be repaired as outlined below.

New Concrete Surfaces

Approved methods include shot-blasting with a Turbo TB-12, Blastrac or other equal equipment. The prepared surface shall have the texture of medium sandpaper and be completely free of any curing compounds or sealers. Cracks should be repaired using a traffic bearing joint sealant please consult Plexi-Chemie's technical representative for recommendations.

Old Concrete Surfaces with Previous Coatings

Shall have all oils, grease, dirt and old coating removed by SSPC-SP-1 solvent cleaning followed by scarification using a K-4 unit or equal to remove the bulk of the old coating. Surface preparation shall be completed as outlined in *New Concrete Surfaces* using an approved preparation system. Holes and other bad areas have to be patched up, please consult Plexi-Chemie's technical representative for recommendations. Cracks and expansion joints and holes shall be repaired as outlined previously.

Metal Surfaces

Shall be blast cleaned to a near white SSPC-SP-10 level of cleanliness using shot-blasting or other approved method. A primer may be needed, please consult Plexi-Chemie's technical representative for recommendations.

Old Concrete Surfaces That Are Uncoated

Shall be carefully examined for oils, grease, dirt and old coating removed utilizing the previously outlined surface preparation methods. Oils, such as cutting fluids and coolants can penetrate so deeply into a floor that they cannot be removed. If there is any question as to the depth of oil or contaminant penetration, a 2" diameter core sample shall be taken and submitted to Plexi-Chemie for specific

recommendations. After solvent cleaning is completed, shot-blasting as outlined in *New Concrete Surfaces* shall be performed. The prepared surface shall have the texture of medium sandpaper and fully comply with the conditions outlined in *general for all substrates*. Cracks, expansion joints and holes shall be repaired as outlined previously.

PRIMER:

Prime areas with PlexiSure 101 Primer.

MIXING:

Approved equipment

- High Torque, Low Speed (275 RPM, Max) Mixer or ½" Drill Motor.
- Jiffy Mixer – Inverted Cup Shape.
- Bi-Thermo Coating Thermometer.

Thoroughly mix both Part A and Part B components separately before proceeding further.

Mix six volumes of Part A with one volume of Part B (6A:1B) in a clean, dry metal container using the approved equipment. It is imperative that the material be mixed for three minutes, making certain that neither component adheres unmixed to the sides or bottom of the container. Do not entrain any air in the membrane during the mixing process. Monitor the membrane temperature during mixing. An increase in temperature of 3° to 4°F should be observed.

APPLICATION

Pour the properly mixed material onto the surface to be coated, being careful not to invert the container so as to touch the surface with the sides of the mixing container since unmixed material might cling to the lip or outside of the container and transfer to the area to be coated. Scrape the container thoroughly and add to the next batch which is being mixed while this application takes place. Approved equipment is 18" – 24" rubber squeegee for initial spreading to the desired film thickness. Monitor application with a wet film thickness gauge.

NOTE: Complete kits of mixing and installation equipment are available upon request.

A primer is highly recommended prior to the application of PLEXI-SURE 170. For best results, it is important that the application of PLEXI-SURE 170 be made after the lapse of at least two (2) hours, but before six (6) hours from the application of the primer, provided substrate and air temperature range between 65°F and 75°F with relative humidity at 50%.

For best results, please consult Plexi-Chemie's technical department.

COVERAGE

- 60 Mils = 25 ft.²/gal.
- 30 Mils = 50 ft.²/gal.
- 15 Mils = 100 ft.²/gal

CLEAN-UP

Cleaning up of all equipment and tools is recommended before the gel time of the system expires. Cleaners based on MEK, a lacquer thinner or xylol can also be used. It is mandatory that these solvents are not added directly or indirectly to PlexiSure 170.

LIMITATIONS

- The surface must be dry before application of PlexiSure 170
- Air and surface temperature should be above 50°F to obtain proper cure.
- PlexiSure 170 should not be used for conditions where the cured material is subjected to dry temperature conditions exceeding 180°F and wet temperature conditions exceeding 160°F.
- Not intended for exterior use without UV resistant traffic bearing top coat.

STORAGE

The product has a shelf life of 6 months from date of manufacture when stored in sealed containers at temperatures in the range of 50-100 °F. Avoid exposure to extreme temperatures for an extended period of time.

HEALTH AND SAFETY

Direct contact with skin and eyes should be avoided as it can cause irritation. Protective clothing, goggles, and gloves are recommended. Adequate ventilation is required when handling. In the event of direct contact with the skin, immediately wash with soap and water and report to a physician. In case of accidental contact with the eyes, flush immediately with plenty of water and report to a physician. For details refer to product material safety data sheet. This product contains isocyanine and curative material.

Before using any Plexi-Chemie product, be sure to read the Material Safety Data Sheet.

TECHNICAL PROPERTIES

Color	Part A: Gray	Part B: Amber
Mix Ratio (by volume)	6 Parts A to 1 Part B	
Viscosity cp @ 77 °F	Part A: 6,000-12,000	Part B: 20-80
Density, lb/gal	Part A: 9.58	Part B: 11.17
Gel Time, min @ 75 °F (100 g)	20-30	
Initial Set time, hours @ 75 °F	2	
Initial Cure Time, hours @ 75 °F	6-8	
Final Cure time, hours @ 75 °F	72	

PHYSICAL PROPERTIES

		80-90
Elongation, % @ 75 °F		>300
Elongation, % @ 0 °F		>200
Tensile Strength, psi	ASTM D 412	>2,100
Tear	ASTM 624	310-395 lb/inc
Water Absorption	ASTMD 471	< 2%