PAR1 Primer Data Sheet

Product Description

PAR1 PRIMER is a two component, fast curing, high strength methyl methacrylate reactive resin. It is formulated to form a very strong cohesive bond to substrates and seal surfaces.

Uses

PAR1 PRIMER is used to seal and prime concrete substrates:

- to promote adhesion of ESSELAC resin systems
- to seal and heal cracks in concrete decks
- to help consolidate weak surfaces

Product Advantages

- Excellent bond to substrate, typically stronger than the cohesive strength of concrete surface
- Bond test allows for on site quality assurance
- Low viscosity enables good penetration into cracks and voids without excessive material consumption
- Fast cure, typically 20 minutes for foot traffic and 40 minutes for overcoating
- Working temperature range can be extended by simple site addition of Cold Temperature Additive as required
- Easy to apply to horizontal and vertical surfaces
- No critical overcoating window - can be overcoated any time without re-priming, or abrading
- Seamless, no cold joints
- Used over a wide temperature range, including below freezing. Note: when used for crack penetration, the product's higher viscosity at low temperatures may reduce its penetration into cracks

Physical Characteristics

Percent Solid :100%
Pot Life @ 68°F :10-20 minutes
Cure Rate @ 68°F :30-45 minutes
Overcoat Time :30-45 minutes
Tensile Strength :4,000 psi
Tensile Modulus :400,000 psi
Viscosity :50-80cps
Elongation :25-30%

Surface Preparation

Conduct surface preparation to ASTM D4259-22 at a minimum. The substrate must be dry and free from oil, grease, dirt, bituminous material and other contaminants. Unsound concrete and laitance shall be removed by appropriate mechanical means. Cracks to be sealed must be cleaned of debris and moisture by vacuum or compressed air.

Bond Test

Conduct tensile adhesion tests to ASTM D7234 on concrete and to ASTM D4541 on steel. The bond of the primer to the substrate should exceed the tensile strength of the substrate. In the case of concrete, this should result in concrete and fractured aggregate remaining attached to the test dolly, with failure occurring at 150 psi or higher. Failure mode shall be within the concrete substrate.

If low values are obtained and only a trace of substrate is attached, further preparation is required.

Application

1. SURFACE PRIMING & SEALING

When used as a surface primer/sealer, the product can be applied by brush, roller or spray. The appropriate amount of Hardener Powder is determined by the GCP Mixing Guide and is a function of the material and substrate temperature. The Hardener Powder is added to the resin and thoroughly dispersed.

2. CRACK SEALING

When used as a crack sealer, PAR1 Primer is applied direct to the cracks via suitable dispensers as recommended by our Technical Services Department. The material is introduced directly to the crack aperture and allowed to pond, enabling the resin to penetrate into the crack. We do not recommend spray application for this purpose.

Packaging and Storage

PAR1 Primer 4.7 gal kits 42.5 gal drum

Store in a cool, dry place, out of direct sunlight. Do not store near open flame or food. Product has a minimum shelf life of twelve months in the original unopened container.

Coverage

For application as a full surface primer/sealer prior to application of a GCP resin system or for consolidating a surface PAR1 Primer is applied in one coat at a rate of 80-175 ft per gallon, depending on the porosity of the concrete. Porous substrates may require a second application.

Consumption rates for sealing cracks can vary considerably, and a test area should be installed before commencing work to help determine likely coverage rates.

Cleaning

All tools and equipment should be cleaned with acetone before the material is allowed to cure.

Precautions

PAR1 Primer liquid resin components are classed as flammable liquid (flashpoint 52.7°F) and should be handled accordingly. Workers should wear protective clothing. Adequate ventilation must be provided. Read and understand all Material Safety Data Sheets prior to commencing work.

The resin cannot be thinned with the additions of any solvents.

Health & Safety

Users must read and understand the product label and Safety Data Sheet for each system component before use. All users should acquaint themselves with this information prior to working with the material. Carefully read detailed precaution statements on the product labels and SDS before use. SDS's can be obtained from the GCP website at gcpat.com or by contacting GCP toll free at 1-866-333-3SBM(3726)

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