Plastifloor® 115 B (USA)

Solvent-free PMMA resin for use as a primer, sealer, or scratch coat on concrete bridge decks

PLASTI CHEMIE International GmbH

Description

Plastifloor® 115 B is a low-viscosity, two-component, fast-curing resin based on polymethyl methacrylate (PMMA).It cures rapidly even at low temperatures

Application

Plastifloor® 115 B is used as a primer, sealer, or scratch coat on concrete highway bridge decks. It is suitable for subsequent application of bituminous waterproofing membranes beneath asphalt surfacing.

Properties and Advantages

- Quick and easy application
- Fast curing, even at very low temperatures
- Heat resistant during torch application of bituminous membranes and asphalt
- Can be overlaid with torch-applied bituminous membranes after approximately 2 hours
- Suitable for use on "young" concrete
- Excellent adhesion to a wide range of substrates
- Resistant to hydrolysis and alkalis
- Solvent-free

Packaging

55.1 lb (25 kg) and 22.0 lb (10 kg) pails

Technical Data

Property	Measuring method	Approx. value
Viscosity at 73 °F (23°C)	DIN EN ISO 2555	120 - 160 mPa · s
Flash point	DIN EN ISO 2719	+50 °F (10°C)
Density D^{68}	DIN EN ISO 1183-1	1 g/cm^3
Pot life at 68°F	approx. 12 min	
Curing time at 68 °F	approx. 30-40 min	
Colour	reddish	
Shelf Life	dark at <68°F 12 months in the original sealed container	

Application

Information:

Stir the container contents thoroughly before use. Plastifloor® 115 B can be processed with Plastifloor® Hardener 50 W. The amount of hardener must be adjusted to the respective object temperature (see table). The reaction time of the system depends on the surface temperature, which must be measured and documented in advance. The amount of hardener powder to be added depends on this surface temperature.

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Required amounts of hardener

Temperatur [°F]	Plastifloor® Hardener 50 W [w/w.-%]
32 - 41	6.0
41 - 50	5.0
50 - 59	4.0
59 - 68	3.0
68 -77	2.0
77 - 95	1.0
Conversion:	**0.033814 oz Plastifloor® Hardener 50 W = 0,64 g**
	1 g Plastifloor® Hardener 50 W = 0.05308 fl oz

Primer on concrete

Plastifloor® 115 B is applied to the prepared concrete surface in one application at approximately 0.061-0.102 lb/ft^2 (300 - 500 g/m²).Distribute the material with a sheepskin rollerApply the PMMA resin evently to avoid material buildup.Broadcast the freshly applied primer with kiln-dried quartr sand, 20-50 mesh (0.3-0.8 mm), at a maximum rate of 0.164 lb/ft^2.(800g/m2).Avoid excessive broadcasting.

Sealer on concrete

According to ZTV-ING Part 7, Section 1
Plastifloor® 115 B in the first application at a minimum rate of 0.082 lb/ft^2 (400 g/m^2).Immediately after rolling, broadcast the layer with dry quarzt sand, 16-25 mesh (0.7-1.2 mm), at a maximum rate of 0.205 ib/ft^2 (1kg/m^2). Avoid excessive broadcasting. Remove any loose broadcast material as soon as the curing condition of the layer permits. In a second application, apply Plastifloor® 115 B evenly at a minimum rate of 0.123 lb/ft^2 (600g/m^2).Distribute the material to avoid buildup and to ensure that the broadcast a uniformly rough and visually closed surface. Do not broadcast quartz sand onto the final surface.

Scratch coat on concrete

Before applying the scratch coat, prime the concrete surface with Plastifloor® 115 B at a rate of approximately 0.082 lb/ft^2 (400 g/m^2)
According to ZTV-ING, excessive surface rougness of the prepared concrete must be leveled with a scratch coat made from Plastifloor® 115 B and Plastifloor® aggregates.

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Broadcast the surface of the fresh scratch coat with kiln-dried quartz sand at a maximum rate of 0.164 lb/ft^2 (800g/m^2).Avoid excessive broadcasting.

Remove any loose quartz sand after the scratch coat has cured sufficiently. The consumption of the scratch coat depends on the roughness of the concrete surface

Working on at least 7 days old concrete

The concrete surface must be dry. Dryness is tested by local heating with a hot air blower. Damp concretes are much lighter. Do not work in this case.
The 7-day old concrete surface is to be treated according to the section "sealer on concrete".

Air temperature: + 23 °F min. (-5°C) / + 95 °F max. (+35°C)

Humidity: Maximum 90%

Dew point: During application and curing, the substrate temperature must be at least 5°F (3°C) above the dew point temperature. Protect against condensation.

Substrate temperature: + 23 °F min. (-5°C) / + 95 °F max. (+35°C)

Substrate moisture: Concrete bridges: Requirements according to ZTV-ING, Part7,Section 1. “Hot-air test” for civil engineering structures: <4% moisture (measured with a CM device), unless otherwise specified by ZTV-ING.

Processing Notes

Substrate preparation: The primer must only be applied to a properly prepared substrate. The substrate must be sound, dry and free of dust, laitance, loose particles, oils, grease and other contaminants. Prepare the substrate by sandblasting, shot blasting or milling.

Mixing: First stir the container contents thoroughly.
Add Plastifloor® Hardener 50 W at low speed and mix for 1 minute, including the bottom and sides of the container.
At product temperatures < 23°F (-5°C), mix for 3 minutes. For scratch coats, add the aggregate first, then the hardener, ensuring homogeneous distribution

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Applying:

Apply the recommended amount of primer evenly with a sheepskin roller or rubber squeegee to form a continuous film. Avoid puddles. After curing, repair any defects or unsealed areas with a second application. Touch up localized depressions with a brush if necessary. A continuous, film-forming primer layer is required before further coating.

Storage:

Plastifloor® methacrylate resins are highly flammable and must be handled accordingly. Store in a cool place, away from direct sunlight, preferably at 59 - 68 °F (15 – 20 °C) During storage, paraffin particles and fillers may settle. Therefore, containers must be thoroughly mixed before use. Please refer to the current Safety Data Sheet.

Industrial safety:

Provide adequate ventilation during application. Follow all applicable regulations for the handling of hazardous materials and observe the safety precautions provided in the current Safety Data Sheet (SDS)

HS-Code: 3208 2010

Data concerning our products and devices as well as concerning our data and procedures are based on an extensive research work and an application technology experience. We obtain these results, with which we do not take over adhesion going beyond the respective single contract, in word and writing after best knowledge, reserve ourselves we however technical changes in the course of the product development. Beyond that our application technology service stands when desired for large consultation as well as for co-operation with the solution manufacturing and application technology problems for order. That does not relieve the user however to examine our data and recommendations before their use responsible for the own use. That applies - particularly for deliveries to foreign markets - also regarding the keeping of patent rights third as well as for applications and procedures, which are not expressly in writing indicated by us. The case of loss our adhesion is limited to indemnifications of same extent, as they plan our general terms of delivery and sales with lack of quality.

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