

Technical Data Sheet

Epox-3111

(Epoxy Primer)

Product Description

This product is a two-component epoxy primer that is used to connect composite plastics to concrete and metal structures. Very high adhesion and excellent resistance in chemical environments are the properties of this product. This product can be applied as a spray or roller roll.

Advantage

Application in areas with high temperatures

High wear and impact applications

Application in concrete liner

Application in stainless steels, galvanized, aluminum

Application in composites

Excellent adhesion to a variety of substrates

High bond strength to wet concrete

Excellent chemical resistance

Long time to re-cover

Low water permeability

Good flexibility



Typical Properties

Property	part A	part B	mixed system
Appearance	clear and black tin	green	clear
Density (g/cm ³)	1.13	1.09	1.1
Viscosity at 25 C	liquid	liquid	liquid
Pot life at 25°C, 100 g, min			20 min

Processing

Mix ratio Product	by weight
Part A resin	100
Part B hardener	20

Drying and curing time

Substrate temperature	5	10	23	40
Surface touch dry	18 h	8 h	2.5 h	1 h
Walk-on-dry	48 h	36 h	24 h	12 h

Instructions for use

Surface preparation

The required quality of surface preparation can vary depending on the area of use, the expected durability of the project specifications, when preparing new surfaces, pre-coated surfaces or old coatings must be removed, all contaminants that can stick together are required. Disrupt the coating, remove it and prepare a healthy substrate for the next product.



The surface should be inspected for hydrocarbons and other contaminants and, if present, cleaned with an alkaline detergent. Rinse the treated area with fresh water before drying. Paint solvents should not be used for general degreasing or surface preparation.

Preparation process

Surface preparation and coating should usually begin after welding, degreasing, sharp edge removal, welding spraying, and welding operations. It is important that all hot work begins before coating begins.

Coated surfaces should be prepared by mechanical preparation methods. Suitable methods for this operation are grinding with a disc, hand tilt or brushing. When working with abrasive tools, the metal surface should be prevented from being crushed. Because it can reduce the adhesion of the coating. The surface should be rough and opaque. Successive layers of coating should overlap each layer and the new coating should always be attached to an existing layer.

Connection to concrete surfaces

In order to bond to concrete, it must be at least 28 days old. Applying any coating before this time greatly increases the chance of the coating separating. Concrete moisture should be checked before applying the coating and should not be more than 5%. Concrete substrates must be mechanically prepared to leave a clean, healthy, and dry foundation on which a coating system can be applied. Concrete with unhealthy areas (cavities, voids and brittle surfaces) should be removed.

The materials chosen for the coating system are very important because most coatings require a dry surface for proper adhesion. Moisture in the concrete that travels to the surface through the concrete pores may prevent sufficient coating adhesion. Ultra-high pressure water can be used to remove liquids and expose holes and defects. Make sure the concrete is dry before applying the coating.

Product working conditions

Acceptable environmental conditions - before and during use

Air temperature -5 to 50 ° C

Bed temperature -5 to 60 ° C

Relative humidity (RH) 10 - 85%



Apply the coating only when the bed temperature is at least 3 ° C (5 ° F) above the dew point.

- If the bed is wet or there is a possibility of getting wet, do not apply the coating
- Do not apply the coating if the weather is clearly deteriorating or unfavorable for application or processing.
- Do not apply the coating in strong wind conditions.

Quality guarantee

- Before starting the surface preparation, make sure that all welding and other metal work is completed.
- Make sure the installed ventilation is balanced.
- Make sure that the required surface preparation standard is obtained and done before applying the coating.
- Make sure the weather conditions are in line with AG recommendations and maintained throughout the program
- Make sure that the coating is not affected by rain or other factors during processing
- Note that in the corners, gaps, edges and surfaces of the spray site is sufficient coverage, the gun can not be placed so that the spray hits the surface at a 90 degree angle
- Note that the coating is free of defects, discontinuities, abrasives and other contaminants.

Equipment maintenance

All tools should be cleaned with hot soapy water before the adhesive residue dries. Removing cooked debris is a difficult and time consuming operation. If solvents such as acetone are used for cleaning, staff should take appropriate precautions and, in addition, avoid skin and eye contact.



Typical Physical Properties

Property	value	test method
Pull of adhesion		
3-5 mils steel/ dp grout	950 psi(6.5 mpa)	ASTM D4541
5-8 mils steel/ dp grout	1250 psi(8.6 mpa)	
3-5 mils steel/ hp grout	1150 psi(7.9 mpa)	
5-8 mils steel/ hp grout	1300 psi(9 mpa)	
3-5 mils steel/ sp grout	1350 psi(9.3 mpa)	
5-8 mils steel/ sp grout	1450 psi(10 mpa)	
concrete 3-5 mils	550 psi(3.8 mpa)	
concrete 3-5 mils	650 psi(4.5 mpa)	
Hardness 3-5 mils	75	ASTM D2240
Hardness 5-8 mils	86	ASTM D2240
Roller peel test	3.1	iso-4578

health and safety

The adhesive should be stored in closed containers at a temperature of 25 degrees.

After using the material, close the lid of the remaining material tightly.

Before using the material on the surface, make sure that there is no dust, damp or moisture on the surface.

Before using the material, clean the surface from any grease and dirt.

Wear industrial gloves and a mask when using materials.

