

S&P Resin Epoxy 55

S&P Resin Epoxy 50

Laminating resin

01/08

Application

The S&P Resin Epoxy 55/50 is used as a laminating resin for the following S&P Sheet systems:

S&P C-Sheet
S&P G-Sheet
S&P A-Sheet

Its high wet ability and thixotropy allow bonding of FRP systems of up to 400 g/ m². Sheets of 400 - 800 g/ m² are preimpregnated with S&P Resin Epoxy 55/50 and wet applied.

Description of product

Solvent-free, transparent 2-component epoxy resin with a formulated amine hardener.

Performance

When fully cured the S&P Resin Epoxy 55/50 is resistant against bases, diluted acids, saline solutions, mineral oils and aliphatics. The S&P Resin Epoxy 55/50 is weather resistant and is almost non-yellowing. The S&P Resin Epoxy 55/50 is resistant to constant as well as changing temperatures within the range of -30°C up to +45°C with dry exposure and up to +40°C with wet exposure.

Processing

The S&P Resin Epoxy 55/50 is delivered in the prescribed mixing ratios. The hardener (Comp. II) is poured into the resin (Comp. I). It is important that the hardener is used up completely. Mixing of both components is preferably done by means of a low speed drill equipped with a mixing paddle. Mix thoroughly and carefully scrape the sides and bottom of the container while mixing to ensure that the hardener is evenly distributed also vertically. After blending the mix must be homogeneous, i.e. without streaks. The temperature of both components at the moment of mixing shall be 15°-20°C. Higher temperatures considerably reduce the open time.

The S&P Resin Epoxy 55/50 must be protected from moisture during 6-8 hours after the application. Should any contact with moisture occur during this period, the surface will turn white and tacky; the resin below, however, cures perfectly. In discoloured or tacky areas the bond to any subsequent coating is either reduced or completely prevented. If the product is used as a primer, special attention has to be paid to this circumstance.

Safety precautions

When fully cured the S&P Resin Epoxy 55/50 is physiologically harmless. The hardener (Comp. II) is caustic. Care must be taken that no skin contact with the resin (Comp. I) or the hardener (Comp. II) takes place. It is recommended to wear rubber gloves during handling and application. If skin contact occurs, rinse with soap and plenty of water. If eye contact occurs, rinse at once with plenty of water and additionally use an eye rinsing kit (available in drugstores). Seek medical advice immediately.

Cleaning of tools

In case of any work interruption exceeding 15 minutes all tools must be thoroughly and carefully cleaned with the S&P Cleaner and rinsed.

Safety directions

For directions regarding dangers, safety and waste disposal please refer to the EN material safety data sheet and the label on the containers.

Technical data

(The standard values below indicated are based on +20°C and 50% relative humidity of air.)

Density	1.11 kg/l	
Mixing ratio by weight	2:1 (resin to hardener)	
Thermal elongation	70 x 10 ⁻⁶ m/m °K	
Glass transition temperature	52°C	
Application temperature	+8°C to +35°C	
Application time at	+ 10°C	3 h
	+ 20°C	45 min
	+ 30°C	30 min
Dust-dry after	4 h	
Hardening time	7 days	
Tensile strength after	7 days	35 MPa
Elongation at break	8 - 10 %	
Bond strength on concrete	failure in concrete	
Bond strength on steel/FRP	> 15 N/mm ²	
Toxicity class	Comp. I	9
Toxicity class	Comp. II	8
Transport class / UN No.	Comp. I	III / 3082
	Comp. II	III / 2735

Packaging

Units of 6 kg or container of 1'000 l

Storage

In original containers, at +5°C to +25°C, 12 months

As of all other technical indications and information provided by us, the only purpose of this data sheet is to describe the nature of this product, as well as its possible applications and fields of use. However, it does not guarantee certain properties of this product or its suitability for a determined purpose of application; furthermore, the directions for use given in this data sheet are not complete. Since this data sheet is subject to modification, it is the duty of our clients to ensure that they refer to the latest version. The updated data sheets can be obtained at all times from all our locations. In addition, the current general terms of business are applicable.