DESCRIPTION

Poltix Gelcoat SF is a special styrene free gelcoat (**SF**) based on a pre-accelerated unsaturated polyester resin. The gelcoat is produced with durable pigments and available in any (uni) color.

PRINCIPAL CHARACTERISTICS

* Thixotropic, reduces sagging on vertical surfaces;
* Pre-accelerated;
* Excellent hiding power and filling properties;
* Protective coating for reinforced polyester laminates such as interior parts of boats, exterior parts of storage tanks and silo’s, auto parts, floorings for trucks, etc.;
* Excellent scratch and impact resistance;
* Available in in a brush (-**B**) or spray (**-S**) viscosity.

COLOURS AND GLOSS

Every (uni) colour according to RAL or NCS colour fan, other colours on request

BASIC PROPERTIES (AT 20˚C AND 50% r.H.)

Density : approx. 1,4 g/cm3 (depending on colour and type)

Solid content : approx. 100 % (volume)

Recommended d.f.t. : 300 - 400 µm (dry), depending on application

Dust dry after : 4 hours

Full cure after : 12 hours

Recoating interval : min. 4 hours, see additional information

 max. no limit, provided clean and dry

H.D.T. (DIN53458) : approx. 65 ºC

Shelf life : separate components, stored cool and dry in original packaging, minimum 3 months

Flash point (DIN53213) : base component 34 ºC

 hardener component 52 ºC (MEK peroxide)

Spreading rate

At 300 µm (dry film) : approx. 2,4 m2/kg

At 350 µm (dry film) : approx. 2,1 m2/kg

At 400 µm (dry film) : approx. 1,8 m2/kg

The practical spreading rate depends on a number of variables, such as: shape and size of object to be painted, the condition and profile of the substrate, the method of application, climatologic conditions and skill of labour.

Substrate condition and temperature

Mould : in good condition, clean and dry, free from any contamination, loose particles and other foreign matter; pre-treated with a suitable mould release agent;

During application and curing a minimum temperature of 15 ºC is allowed. The temperature of the substrate should be minimum 3 ºC above dew point.

Instructions for use

Before use, mix base and hardener components thoroughly.

Mixing ratio : 100 base : 2 harder (by weight)
Do not prepare more material than can be applied within the pot life of the mixture.

Induction time : none

Pot life : brush version:

 10 minutes at 25 ºC

 15 minutes at 20 ºC

 20 minutes at 15 ºC

 The pot life depends also on colour.

Application with :

|  |  |  |
| --- | --- | --- |
|  |  | Only airless version |
|  | Brush | Airless spray, external mixing | Airless spray, internal mixing |
| Type of thinner | n.a. | n.a. | n.a. |
| % of thinner | n.a. | n.a. | n.a. |
| Nozzle orifice | n.a. | 0,016 inch | 0,023 inch |
| Nozzle pressure | n.a. |  |  |
| Cleaning with | Double Coat Degreaser, Ethyl acetate or Acetone |

Application by airless is only possible with the special airless version of Poltix Gelcoat SF-S.

ADDITIONAL INFORMATION

* Recoating Polix gelcoat SF

 The minimum time before recoating the first or second layer of Poltix gelcoat SF is strongly influenced by the temperature, layer thickness and time. Poltix gelcoat SF is characterized by a fast pot life but slow curing upon application. Adding extra peroxide will significantly shorten the pot life but will have little influence on the final drying.

|  |  |  |  |
| --- | --- | --- | --- |
|  | 15 ºC  | 20 ºC  | 25 ºC  |
| Minimum, with Poltix Gelcoat SF | 4 hours | 2,5 hours | 1,5 hours |
| Minimum, with laminating resin styrene containing | 8 hours | 4 hours | 3 hours |
| Minimum, with laminating resin styrene free | 4 hours | 2,5 hours | 1,5 hours |
| Maximum, with Poltix Gelcoat SF | 24 hours | 24 hours | 18 hours  |
| Maximum, with laminate | 24 hours | 24 hours | 18 hours |

The first layer of Poltix gelcoat SF will still feel a bit tacky at the indicated times and will rub off. This is not a problem when a subsequent layer of Poltix Gelcoat SF is applied. Before starting lamination with a styrene-containing resin, we recommend waiting until the Poltix Gelcoat SF no longer rubs off.

* Recommended layer thickness

The recommended layer thickness applies per layer and is partly determined by the application method. We recommend applying at least two layers of +/- 500 microns. This prevents thin spots in the gel coat. Brush marks, sags. Thin spots often remain visible in the end product. Avoid thin spots, as the product will dry substantially more slowly in these spots.

* Application of Poltix Gelcoat SF
* Use for airless application only the special airless quality of Poltix Gelcoat SF-S.
* Apply Poltix Gelcoat SF evenly, without runs or sags, preferably in two coats.
* A too low temperate will give a long gel time. The polymerisation will be incomplete. A too high temperature will shorten gel time. A too high application temperature will give a too rapid curing and will cause air entrapment.
* Pre-accelerated
Poltix Gelcoat SF is pre-accelerated with a combination of special accelerators and promoters
* Chemical resistance
The UV resistance and resistance to chemicals may differ per color. We recommend that you test the product in advance for your application. If necessary, please contact our sales department for advice.
* Hardener
As hardener/catalyst we recommend Butanox M50 (Akzo Nobel) or Peroxan ME50L (Pergan).
After mixing the base component with the harder the temperature of the mixture will increase rapidly due to an exothermic reaction. Do not prepare more material than can be applied within the pot life of the mixture.

SAFETY INFORMATION

This product contains solvents. Take all necessary safety measurements when using this product and arrange proper ventilation and safety equipment for all personnel. For details on safety and health see our material safety data sheet.

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Disclaimer

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