

SILRES® HP 2000

AMINOFUNCTIONAL SILICONE RESIN SOLUTION

Product description

SILRES® HP 2000 is an aminofunctional, methyl phenyl silicone resin solution.

Properties

SILRES® HP 2000 is used as a high performance hardener for organic epoxy resins in high-solids coatings.

Cured epoxy amine polysiloxane coatings exhibit exceptional weathering resistance in terms of gloss retention and yellowing.

Special features

- extraordinary weathering resistance
- outstanding gloss retention and low yellowing
- isocyanate-free ambient temperature crosslinking
- suitable for very high-solids coatings
- easy-to-clean/anti-graffiti effect
- excellent corrosion resistance
- free of benzylalcohol/alkylphenols

Application

Epoxy amino polysiloxane systems are an economic alternative to reduce 3 coat systems (zinc primer, epoxy, polyurethane) to a 2 coat system (zinc primer, epoxy amino polysiloxane).

Paints can be formulated with very low VOC-levels (< 100 g/l).

The complete abandonment of isocyanates is also a great advantage regarding environmental, health and safety issues.

Due to its excellent weathering resistance, the epoxy amino polysiloxane coating can offer UV-resistance and weather-resistance as a polyurethane top coat combined with the adhesion and barrier properties of an epoxy amine coat within a single coat.

- industrial coatings
- structural steel (infrastructure)
- marine & protective coatings
- pipelines and containers

- automotive coatings (trucks, lorries)
- anti-graffiti coatings
- easy-to-clean coatings

Processing

Detailed information on exemplary guide formulations is available upon request.

- All weather-stable pigments can be used.
- Preferred organic epoxy resins are cycloaliphatic ones due to their superior weathering properties.
- Epoxy amino polysiloxane paints based on SILRES® HP 2000 are generally 2-pack systems.
- First pack typically contains pigments, additives, suitable organic epoxy resins, optionally solvents.
- Second pack contains SILRES® HP 2000 as hardener.
- Mix both packs thoroughly prior to use.
- Dry to touch is approx. 5h at 20°C.

Storage

Contact with tin (e.g. with improper metal containers) or moisture will decrease shelf life.

The 'Best use before end' date of each batch is shown on the product label.

Storage beyond the date specified on the label does not necessarily mean that the product is no longer usable. In this case however, the properties required for the intended use must be checked for quality assurance reasons.

Packaging

- steel can 25 kg
- steel drum 210 kg

Additional information

FDA/BfR Status

SILRES® HP 2000 cannot be used in compliance with existing regulations for silicones intended to come into contact with food.

Safety notes

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from WACKER subsidiaries or may be printed via WACKER web site <http://www.wacker.com>.

Product data

Typical general characteristics	Inspection Method	Value
Appearance		clear, yellowish, liquid
Solid content		89 - 91 %
Density at 20 °C, at 1013 hPa	DIN 51757	approx. 1,12 g/cm ³
VOC (Xylene content, calculated)		100 - 120 g/l
Amine Number		2,6 - 2,9 mmol/g
H-Amine equivalent		230 - 255 g/mol
Flash point	DIN 53213	38 °C
Ignition temperature (liquids)	DIN 51794	approx. 425 °C
Pot life (at 20 °C)		approx. 4 h

These figures are only intended as a guide and should not be used in preparing specifications.

The data presented in this leaflet are in accordance with the present state of our knowledge, but do not absolve the user from carefully checking all supplies immediately on receipt. We reserve the right to alter product constants within the scope of technical progress or new developments. The recommendations made in this leaflet should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used. The recommendations do not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights and, if necessary, clarifying the position. Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the products for a particular purpose.

The management system has been certified according to DIN EN ISO 9001 and DIN EN ISO 14001

WACKER is a trademark of Wacker Chemie AG.
SILRES® is a trademark of Wacker Chemie AG.

For technical, quality, or product safety questions, please contact:

Wacker Chemie AG
Hanns-Seidel-Platz 4
81737 München, Germany
info.silicones@wacker.com

www.wacker.com