

# SILRES<sup>®</sup> REN 50



## Silicone Resins

SILRES<sup>®</sup> REN 50 is a medium hard methyl phenyl silicone resin supplied as 50 wt.-%-solution in xylene/n-butanol (9:1).

Typical application of SILRES<sup>®</sup> REN 50 is the use as binder for heat-resistant anticorrosive coatings.

## Properties

SILRES<sup>®</sup> REN 50 offers the following properties:

- Silicone resin with high molecular weight
- very good balance of flexibility, hardness, heat resistance and quick tack-free air drying at room temperature
- medium viscosity
- medium hardness
- compatibility with organic resins (but preferably used as a sole binder)
- excellent hydrophobicity and corrosion-protection

# Technical data

## General Characteristics

| Property             | Condition    | Value                                      | Method    |
|----------------------|--------------|--|-----------|
| Appearance           | -            | clear, colorless to slightly yellow liquid | -         |
| Density              | 20 °C        | 1.02 g/cm <sup>3</sup>                     | DIN 51757 |
| Flash point          | -            | 25 °C                                      | DIN 51755 |
| Ignition temperature | -            | 485 °C                                     | DIN 51794 |
| Solids content       | 200 °C   1 h | approx. 50 wt. %                           | -         |
| Solvent              | -            | Xylene and n-butanol (9:1)                 | -         |
| Viscosity, kinematic | 25 °C        | 135 - 185 mm <sup>2</sup> /s               | DIN 51562 |

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

All the information provided is in accordance with the present state of our knowledge. Nonetheless, we disclaim any warranty or liability whatsoever and reserve the right, at any time, to effect technical alterations. The information provided, as well as the product's fitness for an intended application, should be checked by the buyer in preliminary trials. Contractual terms and conditions always take precedence. This disclaimer of warranty and liability also applies particularly in foreign countries with respect to third parties' rights.

Store in a dry and cool place.

Protect against moisture.

## Applications

- Heat-Resistant Coatings
- Industrial Coatings
- Mica Tapes

## Application details

SILRES® REN 50 is mainly used as binder for coatings. It combines outstanding heat resistance and weatherability, quickly dries to tack-free film at ambient temperature.

### Heat-resistant Coatings

SILRES® REN 50 is especially suitable for all kinds of heat-resistant paints. It is an excellent choice for (anti-corrosion) coatings on fireplaces, mufflers, exhaust systems, engine parts, boilers, furnaces, ovens and oven inserts, chimneys, barbeques, electric/gas heaters, incinerators.

High-heat resistant coating formulations with SILRES® REN 50 in combination with suitable temperature stable pigments and fillers can achieve thermal stability up to 650°C (1100°F). Aluminum pigments can be used for silver/grey colors and black pigments like iron manganese oxides or copper chromite black spinels for dark black coatings. Platelet-shaped inorganic fillers/extenders like mica or talc are suitable for such formulations. The pigments and fillers must be properly dispersed in the paint. Degreasing/Cleaning and sandblasting of the substrate are recommended for obtaining optimum corrosion resistance and heat stability on metal surfaces. The adhesion will always depend on the specific coating formulation, too. Coating application can be done by spraying, dipping and brushing.

Coatings made with SILRES® REN 50 quickly dry at room temperature to tack-free films which already provide temporary corrosion protection. A initial baking step at 200°C/1h has proven to effectively reduce the risk of cracking at extreme temperatures. The coating films will develop their final properties only after prolonged exposure to temperatures > 400°C.

Formulation examples are available on request.

Information on the current BfR/FDA-status is available on request.

## Packaging and storage

### Packaging

- 25 kg steel can
- 180 kg steel drum
- 950 kg IBC

### Storage

SILRES® REN 50 must be stored in tightly closed original containers with exclusion of moisture. Contact with tin (e.g. with improper metal containers) or moisture will cause gelation.

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.

## 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>.

## QR Code SILRES® REN 50



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

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