



## TECHNICAL DATA SHEET

### SILICONE RESIN PR9840

#### Description

Medium-hard methyl silicone resin that is particularly suitable for high temperature (> 300°C) applications

#### Applications

Production of heat-resistant paints.

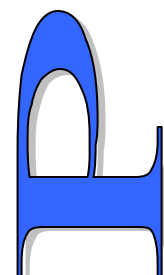
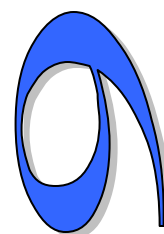
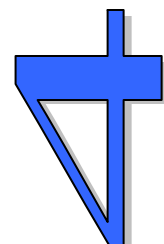
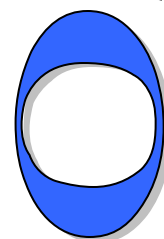
Aluminium-pigmented coatings and heavily pigmented paints based on Silicone Resin PR9840 offer protection against corrosion at temperatures of up to 600°C.

#### Typical Properties

Appearance	Clear, colourless to light straw
Solids content	50 ± 1 %
Iodine colour scale	max 1
Specific gravity at 25°C	1.0 g/ml
Viscosity at 25°C	6-12 mm <sup>2</sup> /s
Flash point	26°C
Ignition temperature	465°C
Storage stability in closed original container	6 months

#### Processing

Resin PR9840 is suitable for all types of highly pigmented paints which must withstand temperatures of > 600°C. Above temperature of 300°C oxidative degradation leads to the liberation of CO<sub>2</sub> and H<sub>2</sub>O, leaving a matrix of SiO<sub>2</sub> which acts as a binder for suitable pigments. These coatings will adhere well to various substrates including steel, aluminium and glass. However, limited compatibility with some organic resins means that clear coatings are not obtainable.



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*Information given in this publication is based upon technical data gained in our own and other Laboratories and is believed to be true. However if the material is used in conditions beyond our control we can assume no liability for results obtained or damages incurred through the application of the data present herein.*

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Coatings based on Silicone Resin PR9840 dry to form a tack-free finish at room temperature and will provide even at this stage very good protection against corrosion and weathering resistance. Complete curing and the development of optimum mechanical properties and chemical resistance, e.g. to oil and petrol, are achieved after stoving. To obtain tack-free coatings after stoving we would recommend the following stoving conditions for the uncatalysed, unpigmented resin solution:-

200°C approx. 1h  
250°C approx 30 min

## **Storage Stability**

Silicone Resin PR9840 has a shelf life of at least 6 months if stored in tightly closed original containers between 5°C and 30°C. The "Best use before end" date of each lot is shown on the product label.

If the material is kept beyond the recommended shelf life it is not necessarily unusable, but a quality control should be performed on the properties relevant to the application.

## **Safety Instructions**

Comprehensive instructions are given in the corresponding Material Safety Data Sheets. They are available on request from Penn-White Limited.