# SiSiB ® SR8604 Solid Silicone Resin

## INTRODUCTION

Powder coatings offer unique environmental advantages over conventional liquid coatings. Using silicone resins as binders effectively resists high mechanical loads and thermal stresses, allowing them to function under extreme conditions. Organic binders have a limited temperature range, but when added with silicone-based powder resins, they retain their functionality in frost and at temperatures up to 600°C.

SiSiB® SR8604 is a solvent-free solid phenyl methyl resin with excellent compatibility with organic resins. It can be as a sole binder and is ideal as a base material for powder coatings, offering enhanced durability and heat resistance.

## EFFECTS

- Non-sticky and non-caking at room temperature
- Strong adhesion and flexibility
- Resistant to both high and low temperatures
- Low coefficient of thermal expansion in molding plastics
- Outstanding aging and wear resistance
- High gloss with excellent insulation properties
- Soluble in solvent-based self-drying coatings
- Heat resistant up to 600°C

## PHYSICAL PROPERTIES

| | |
|---|---|
| Appearance | Solid granule |
| Color | Colorless to yellowish |
| Substituent type | Phenyl, methyl |
| Heating Loss (350°C/4h) | Max.5% |
| Softening Point (°C) | 80-90 |
| Solid Content (180°C/1h) | Min.99% |
| Gelation Time (200°C) | 5-60 min |

## APPLICATIONS

SiSiB® SR8604 Silicone Resin is a high-performance material that enhances the durability and functionality of coatings in extreme environments. When mixed with fillers and pigments, it improves thermal stability, making it ideal for heat-resistant applications.

Blending SiSiB® SR8604 with organic resins creates powder coatings with

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superior weathering resistance, outlasting traditional organic binder systems. White coatings containing SR8604 silicone powder resin as binder are less prone to yellowing than similar powder coatings without silicone resin.

SiSiB® SR8604 resin is perfect for industrial applications requiring heat resistance, such as coatings for exhaust systems and cast-iron stoves. It also meets safety standards for high-temperature food-contact coatings like barbecue grills and cookware, offering excellent gloss retention and alkali resistance with long-term use.

The glass transition temperature (Tg) of SiSiB® SR8604 is over 80 °C. Therefore, it can be used to formulate powder coatings with a long shelf life at ambient temperature.

PACKING

SiSiB® SR8604 is available in 20Kg or 50Kg fiber drum.

HANDLING

This document does not contain the product safety information required for safe use. Before handling, please refer to the product and safety data sheets, as well as container labels, for information on safe usage, physical hazards, and health risks. Safety Data Sheet is available on the website, from the distributor, or by contacting SiSiB customer service.

STORAGE

In the unopened original container SiSiB® SR8604 has a shelf life of 12 months in a dry and cool place at the temperature of 0°C-40°C.

NOTE

All information in the leaflet is based on our present knowledge and experience. We reserve the right to make any changes according to technological progress or further developments. Performance of the product described herein should be verified by testing.

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