

RHODORSIL[®] RESIN 991

Description **RHODORSIL RESIN 991** is a silicone varnish offering significant increases in surface resistivity of insulating materials or electrical equipment such as printed circuits, electronic assemblies, etc. that are intended for use in very humid atmospheres and that are unable to be treated at high temperature.

Advantages **RHODORSIL RESIN 991** is particularly easy to use; it is used as delivered or diluted without the addition of catalyst and without the need for high temperature polymerisation, drying being all that is required.

When used to protect integrated circuits, this resin also has the advantage of being destroyed on contact of the soldering iron. This feature enables quick and trouble-free work to be carried out (no prior cleaning) on protected circuits that are already in service.

Characteristics **1. Physical properties**

- Chemical nature..... combination of a methyl phenyl silicone resin and an acrylic resin
- Appearance..... clear, slightly opaque liquid
- Colour..... pale straw yellow
- Dry matter content % approx..... 50
- Specific gravity at 25°C, approx..... 1.03
- Viscosity at 25°C, approx., mm²/s..... 175
- Solvent..... xylene
- Flash point, closed cup, °C approx..... 25
- Diluents..... aromatic and chlorinated hydrocarbons, ketones and esters

2. Dielectric properties

Measured on a film :

- Dielectric constant at 100 Hz, approx..... 2.7
- Power factor at 100 Hz, approx..... 1×10^{-3}
- Dielectric strength, kV/mm, approx..... 80
- Volume resistivity, Ω.cm, minimum..... 1×10^{14}

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Processing

RHODORSIL RESIN 991 is delivered at a concentration and viscosity that are best suited to a dipping operation. Generally used as delivered, the resin may nonetheless be diluted for special applications using solvents such as xylene, toluene, chlorinated solvents, ketones and esters.

Once diluted, **RHODORSIL RESIN 991** can be applied using a brush or by spraying

At ambient temperature, **RHODORSIL RESIN 991** dries in air within 4 to 12 hours. This drying time can be reduced by placing the products in a fan-assisted drying oven at moderate temperature or by passing them under an infra-red rack.

For best results, it is recommended to apply the resin to parts or surfaces that are scrupulously clean and dry. It is particularly advised to remove any traces of grease or organic substances.

If a « tracer » is required in order to screen the extent and evenness of the coating, trans-stilbene may be incorporated into the solvent phase at amounts of c.a. 1000 ppm. This « tracer » is then visible by fluorescence under uv light of wavelength 365 nm.

RHODORSIL RESIN 991 cannot be applied to parts or materials that are attacked by xylene, a solvent that is included in this varnish's composition.

Packaging

RHODORSIL RESIN 991 is available in 25 kg drums.

Storage and shelf life

When stored in its original unopened packaging at a temperature of between 5 and +25°C, **RHODORSIL RESIN 991** may be stored for up to 12 months from its date of delivery (expiry date).

Comply with the storage instructions and expiry date marked on the packaging.

Past this date, Bluestar Silicones no longer guarantees that the product meets the sales specifications. Use the product quickly once the packaging is opened.

Safety

Consult the Safety Data Sheet for **RHODORSIL RESIN 991**.

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