

**Frexible Silicone
Varnish for Tubing****TSR1122, YR3270**

TSR1122 and YR3270 are elastic type silicone varnishes which produce a highly flexible, resilient, noninflammable film. They are highly suitable for flexible tube coating application, which provide flame retardant, class H grade insulation.

KEY FEATURES

- ◆ TSR1122 is a general purpose varnish. Glass tubing and cloth treated with this varnish, together with the flame-retardant catalyst YC8112, have excellent heat resistivity and flame retardancy. In addition there is little change in dielectric strength even after bending.
- ◆ YR3270 has high solid content and can be coated in thick layers, reducing the coating cycle.

TYPICAL PROPERTY DATA

PROPERTIES		TSR1122	YR3270
Appearance		Pale yellow, translucent	
Solid content	%	30	50
Viscosity (25°C)	Pa-s{P}	4.0 {40}	6.5 {65}
Solvent		Xylene	Xylene
Diluent		Xylene or toluene	

HEAT RESISTANCE AND FLAME RETARDANCY OF TREATED GLASS TUBES

Temperature °C	Time h	Dielectric strength *1 kV			Flame retardancy *2	
		Normal	U shape	After wetted	UL94	UL224
150	0.5	6.1	4.8	5.7	10s	FR-1 Passed
200	24	6.7	3.8	6.9		
250	24	6.2	4.7	5.9		

Note: 2 weight parts of YC8112 to 100 weight parts of TSR1122

*1---Two coatings to 4mm ϕ glass sleeve, cured at 150°C for 30min.
The amount of the varnish (solid) to the glass sleeve is 30 wt %.
Test method is based on JIC C2411.

*2--- Measured with same test specimen as *1

Typical property data values should not be used as specifications. Assistance and specifications are available by contacting GE Toshiba Silicones Commercial Office.

CATALYSTS FOR FABRICATION OF FLEXIBLE TUBING - YC8108 and YC8112

YC8108 is a fast curing catalyst with very few inhibition problems. YC8112 provides flame retardancy to resin and achieves excellent flame retardancy even in thick layer section coating.

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INSTRUCTION FOR USE

- ◆ Standard amount of catalyst (YC8108 or YC8112) added to the varnish (TSR1122 or YR3270) is 2:100 parts by weight.
- ◆ If the finished surface has pinholes or is uneven, dilute the solution with thinner to attain a solid content of between 15 to 20%
- ◆ Curing conditions vary depending upon the base materials to be treated; a typical baking would be done at between 150 and 180°C for 15 to 30 minutes.
- ◆ Pot life of the varnish after addition of the catalyst is about 24 hours at room temperature. However, this can be extended by diluting with solvent. Pot life of diluted varnish with solid content of 20% is about one week at room temperature.

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ELECTRICAL PROPERTIES

Changes in volume resistivity and dielectric constant of TSR1122 versus temperature are shown in Fig.1 and Fig. 2 respectively. Dielectric loss tangent versus frequency is shown Fig. 3.

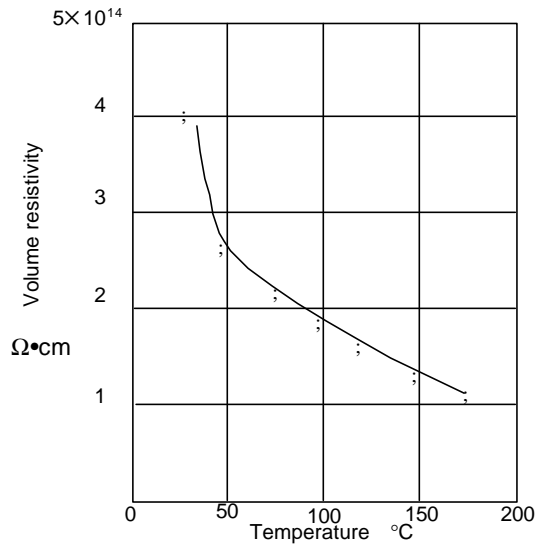


Fig.1 Volume resistivity vs. Temperature

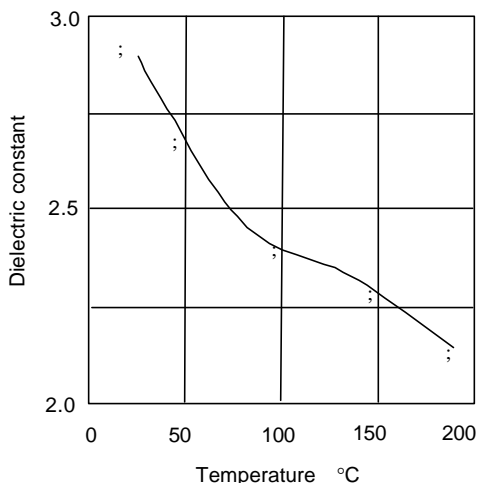


Fig. 2 Dielectric constant vs. Temperature (60 Hz)

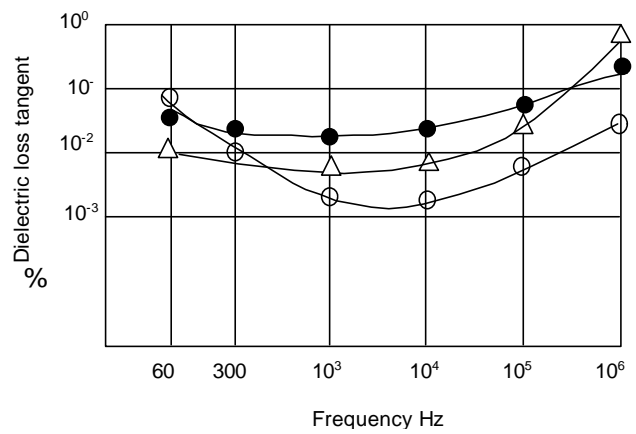


Fig.3 Dielectric loss tangent vs. Frequency

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HANDLING AND SAFETY

- ◆ Wear eye protection, protective gloves, and respiratory protection while handling the product.
- ◆ Since the product is flammable, strictly prohibit the use of devices that may cause fire
- ◆ For electrostatic prevention, have the equipments and devices grounded.

PRECAUTIONS FOR STORAGE

- ◆ Avoid direct sunlight and store the product, after it has been tightly sealed, in a dark indoor area which has little moisture.
- ◆ Keep out of the reach of children.

PACKAGING

TSR1122	17kg can available by the can 180kg drum available by the drum
YR3270	17kg can available by the can

TSR1122, YR3270 E
Issued Jan. 2001

FOR INDUSTRIAL USE ONLY

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