



TSR127B

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Description

TSR127B is a methyl silicone varnish, which requires the addition of catalyst YC9103. A mica sheet made with this varnish generates little smoke even at very high temperature.

Key Features and Benefits

- A mica sheet made with this varnish;
- Generates little smoke even at very high temperature.
- Exhibits excellent physical strength and electric properties
- Exhibits excellent heat and moisture resistance

Typical Physical Properties

(JIS C 2122)

PROPERTIES	
Appearance	Pale yellow, clear
Specific gravity (25°C)	1.04
Viscosity (25°C) mPa·s {cP}	13 {13}
Solid content %	50
YC9103 level %	1.2
Solvent	Toluene, Isopropanol
Diluent	Toluene, Isopropanol

Typical property data values should not be used as specifications.

TYPICAL PROPERTIES OF A MICA SHEET MADE WITH TSR127B

TEST ITEM	RESULT	
	Rigid composite mica	Soft composite mica
Thickness ^{^1} mm	0.532	0.500
Density ^{^1} g/cm ^{^3}	2.12	2.31
Water absorption rate ^{^2} %	0.11	0.23
Bending strength ^{^2} MPa {kgf/mm ^{^2} }	A	23.9
	B	19.9
Volume resistivity ^{^2} Ω·cm	A	4.8×10 ^{^15}
	B	1.4×10 ^{^13}

Dielectric strength ¹ 3 kV (per mm)	47.5	53.5
Arc resistance ² s	420<	420<
Thermal weight loss ⁴ %	0.48	0.38
Smoke test ⁵	Negligible	Negligible

*1: JIS C 2116 *2: JIS K 6911 *3: JIS C2110 *4: 550°C, 2h

*5: Ignition test using 500W heater wire

Potential Applications

- Smokeless mica sheet use

Fabrication Procedure

(1) Preparation of varnish solution

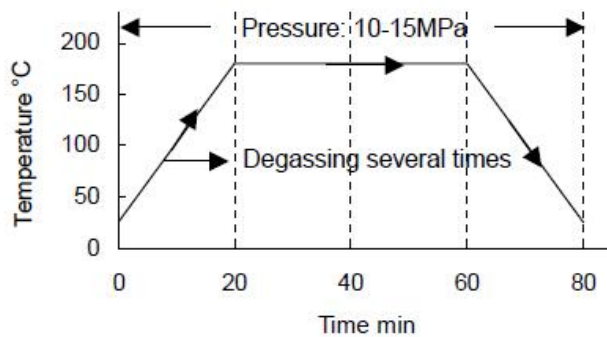
Material	Weight ratio
TSR127B	20.00
Toluene	62.50
IPA	16.70
YC9103	0.24

(2) Coating and drying

Coat the solution on a mica sheet so that the amount of silicone varnish to the mica sheet is 10% (as solid resin). Air dry for 30 minutes, then heat at 110°C for 10 minutes to make a mica prepreg sheet.

3) Press and post-cure

Stack the required amount of prepreg sheets and press heat according to the conditions shown in the following figure. Place the processed sheets in an oven for post curing. Gradually raise the temperature from 100°C to 250°C and hold at 250°C for 3 hours.



Packaging

- 18kg can available

Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage

- Wear eye protection and protective gloves as required while handling the product.
- Avoid any source of ignition.
- Maintain adequate ventilation in the work place at all time.
- Store in a cool and dry place out of direct sunlight.
- Keep out of the reach of children.

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Contact Information

For product prices, availability, or order placement, contact our customer service by visiting www.momentive.com/Contacts

For literature and technical assistance, visit our website at: www.momentive.com

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