

ESUNG SW230

PRODUCT DESCRIPTION

SW230 is a methyl silicone Varnish designed for smokeless mica sheet application.

KEY PERFORMANCE PROPERTIES

A mica plate made with this varnish generates little smoke even at very high temperature. It also has excellent physical strength, heat resistance, moisture resistance, and electrical properties.

TYPICAL PROPERTY DATA

PROPERTIES	
Appearance	Pale yellow, clear
Specific gravity (25 °C)	1.04
Viscosity (25 °C) mPa.s	13
Solid content (%)	50
Solvent	Toluene

TYPICAL PROPERTY DATA OF A MICA PLATE MADE WITH SW230

Test item	Test method	RESULT	
		Rigid composite mica	Soft composite mica
Thickness (mm)	JIS C 2116	0.532	0.500
Density (g/cm ³)	JIS C 2116	2.12	2.31
Water absorption rate (%)	JIS K 6911	0.11	0.23
Bending strength (Kgf/mm ²)	A JIS K6911	23.9	24.6
	D JIS K6911	19.9	15.2
Volume resistivity (Ω.cm)	A JIS K6911	4.8 X 10 ¹⁵	9.3 X 10 ¹⁴
	D JIS K6911	1.4 X 10 ¹³	1.2 X 10 ¹³
Dielectric strength KV (per mm)	A KIS C2110	47.5	53.5
Arc resistance (S)	JIS C 2116	> 420	> 420
Thermal weight loss *1 (%)		0.48	0.38
Smoke test *2		Negligible	Negligible

*1 : Measured after heating at 500°C for 2h

*2: Ignition test using 500W heater wire



<http://www.esung.kr>

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TYPICAL FABRICATION PROCEDURE OF MICA PLATE

(1) Preparation of varnish solution

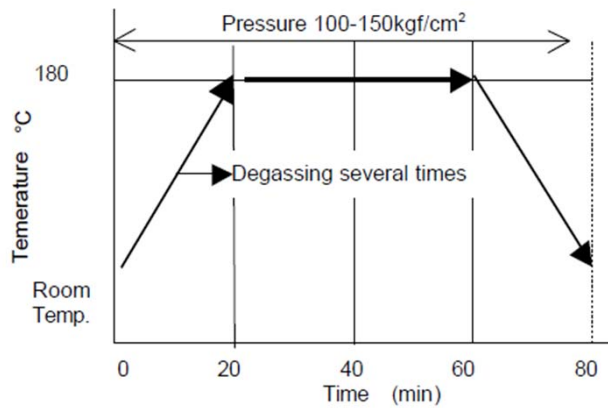
Material	Weight ratio
SW230	20
Toluene	62.5
IPA	16.7
YC9103	0.24

(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 pre-preg sheet.

(3) Press and post-cure

Stack the required amount of pre-preg 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.



HSE SW230

PRECAUTION FOR HANDLING

- 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
- As electrostatic prevention, have equipments and devices grounded.

PRECAUTION FOR STORAGE

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

PACKAGING

- 15kg PAIL
- 180kg DRUM