

Composite Materials for Insulation Varnish Resins



To meet the Market Needs



Special formulated Composite Materials for various fields

Insulation Varnish Resins

- Insulation varnish IVL-Series are good heat resistance, fast cure time, excellent chemical resistance and long Pot-life time in room temperature.

We provide on extensive lineup of products to customers in various industries.



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The typical cured Properties of Insulation varnish Resin

IVL-5074 is epoxy trickle varnish modified by polyimide resin.

IVL-series application are insulation varnish for sartor motor, small size general motor and insulation impregnation for transformer coil.

Application :

PMP start motor amature(delux car)

Transformer coil impregnation / Small size general motor

High voltage transformer(H.V.T) electric part that high H.D.T is required

Insulation varnish Resin for PMP Motors

Model : IVL-5074

General Characteristics

- Good Workability
- Excellent electrical insulation properties
- Excellent heat thermal resistance properties
- Long Pot Life(Refreshing use possibility)
- Excellent Impregnation
- Excellent Mechanical Properties and Electrical Properties
- Short curing time

Application

PMP stator motor



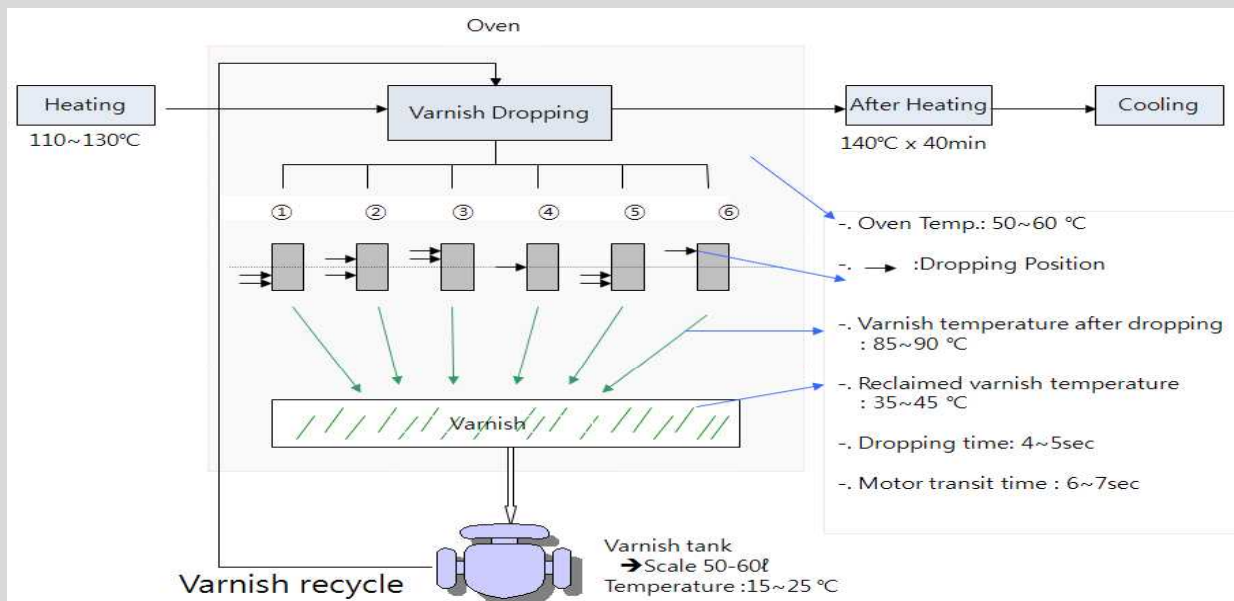
ITEM		UNIT	IVL-5074 (Part-A)	IVL-5074 (Part-B)	REMARK
General characteristics	Appearance	-	Yellow liquid	Clear liquid	-
	Viscosity	cps, at 25°C	1,700-2,300	100 max	BH type Viscometer
	Density	at 25°C	1.13	1.22	-
	Volatility	at 25°C wt%	10max		30min
Working condition	Mixing ratio	wt%	100 / 8		catalyst: 0.5
	Mixed viscosity	cps, at 25°C	1,000-1,400		BH type Viscometer
	Gel time	at 120°C, sec	20-40		1cc Scale
	Pot life	at 25°C, hr	60		-
	Cure condition	140°C X 40min			Oven
Properties after cure	Hardness	-	85-95		Shore-D
	Tg	°C	130		DMA
	CTE	-	9.87 × 10 ⁻⁶ /°C		TMA
	Volume resistivity	Ωcm, 20°C	1.5 × 10 ¹⁵		JIS-6911
		Ωcm, 100°C	0.7 × 10 ¹²		
	Surface resistivity	Ωcm, 20°C	2.1 × 10 ¹⁶		"
		Ωcm, 100°C	1.1 × 10 ¹²		
Dielectric strength	kV/mm	18.5		"	
Boiling water absorption	at 80°C, wt%	0.25		-	

The typical cured Properties of Insulation varnish Resin

Operation instructions

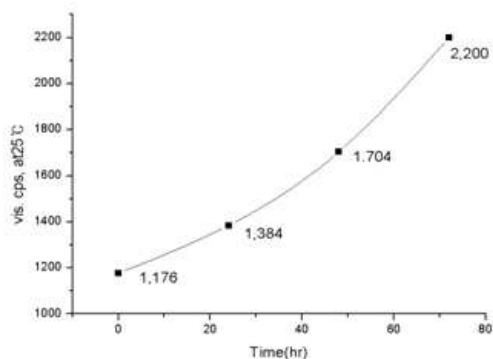
Model : IVL-5074

- It is composed of part A,B and C. Before using the varnish, please fully mix part A,B and C by the proportion of 100/8//0.5 (weight ratio) and then do varnish dropping to motor. The life time is 60hr after mixing part A,B and C. The PMP motor shall be heated before dropping. The heating time and temperature up to the size of the motor. The reference heating time and temperature is 20-30 minutes at 110-130°C. And then do cure for 40 minutes at 140°C.

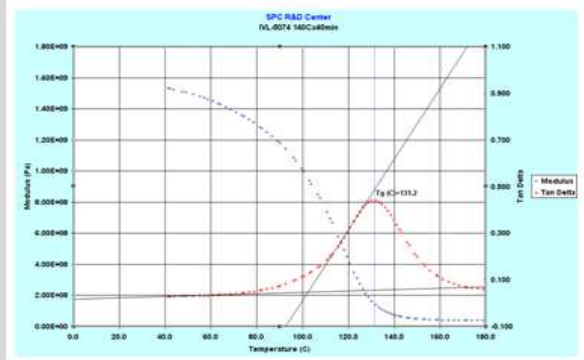


General Characteristics

a. Pot-life



b. Glass Transfer temperature characteristics



Our products

VPI Varnish

Model : NSR-1000



- VPI epoxy resin of which is applied on high voltage insulation system are required the high reliability, easy impregnation, low weight loss and low cost production
- Low viscosity Gradual curing and Long Pot life

PMP Starter motor

Model : IVL-5074



- IVL-5074 is excellent heat resistance, chemical resistance, and good appearance after cured
- Long Pot-life (recycle possibility)
- Small size general motor / High voltage transformer coating

Sensor molding

Model : EML-7400



- This product is especially suited for use in protecting sensors used in harsh environments such as automotive applications
- EML-7400 is a component epoxy system that cures at 125~140°C

Gap-Filling Paste

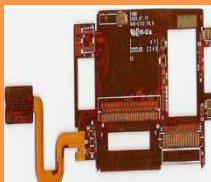
Model : TG-5000/6000



- A gap-filling paste reliably fills spaces between high copper tracks on outer layers before soldermask application. It ensures proper soldermask edge coverage along with a higher reliability especially of high power boards in automotive and other thick applications

Polyimide-Epoxy Modified resin

Model : EIR-1301



- 2FCCL/F-PCB
- Topcoat on enamel coated wires and motors
- High heat resistance coating varnish



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