

1. Product and Company identification

Trade Name	Doctor Best Insulating Varnish
Chemical Name	Doctor Best Insulating Varnish
HSN Code	3208
CAS No.	—
Company name and address	PLAZA Chemical Industries 82, Bye pass road Opp. Heera Talkies New Agra Agra 282005 UP India. (+91) 9634046611, (+91) 9319102461 plazachemicals@gmail.com, www.plazachemicals.com

2. Composition / information on ingredients

Ingredient name	Phenolic resin based solvented air drying Impregnating/finishing varnish.
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3. Description

Doctor Best Insulating Varnish is an Air drying insulating Varnish based on phenolic resin. It is fast drying and useful for Thermal Class B (130°C). It is used as a finishing varnish and impregnating varnish to protect electrical machines and appliances against moisture and chemicals.

The elastic varnish film is characterized by very good mechanical properties such as hardness, penetration, adhesion and bonding strength. The cured film is resistant to moisture, diluted acids & alkalis, chemicals like benzene & oils and climate from 0 to 55°C. It has a good dielectric behavior and dielectric strength.

4. Application Method

Doctor best Insulating Varnish can be applied by dipping, brushing or spraying. Using the dipping method, it should be ensured that the impregnating container is always closed before and after use to prevent evaporation of the solvents to avoid an undesired reaction owing to oxidative curing.

For dipping brushing or spraying the product is used with the viscosity at which it was delivered.

If necessary, a second layer of varnish can be applied after 60 minutes.

Curing normally occurs at room temperature but can be considerably accelerated with the addition of heat, i.e. hot air.

5. Areas of Application

Doctor best Insulating Varnish is also used as a impregnating and finishing varnish for stators, transformers, electric motor, Transformer Oil tank, stamping stacks, bonded phenolic laminates, circuit boards. It is also used to protect against chemicals & moisture to above electrical appliances. Suggested for impregnation of small motors during repairs and rewinding.

6. Specifications

Color and Appearance	Brown clear / Reddish Brown clear Liquid		
Solids content	1.5 g/130°C/2 h	%	45-48
Viscosity at 30°C	DIN 53211/cup No. 4	seconds	25-35
Density at 30°C	ISO 1675	g/ml	0.89 (typical)
Flash point	Closed cup	°C	38 (typical)
Recommended Thinner	PLAZA-A1 Thinner		
Compatibility with PLAZA-A1 Thinner	1 : min 1		
Storage life	When stored in original sealed container at RT	months	12

7. Drying properties at room temperature (25-35°C)

Surface dry time	Minutes	30
Tack free time	Hour	1
Hard dry time	Hour	24

8. Curing Schedule

Recommended Curing Cycle: 8-10 h at room temperature or 1-2 h at room temperature + 4-6 h at 80 - 60°C. The cured varnish film properties are achieved after 24 hours only.

9. Characteristics of the cured varnish film

Specimen curing: 48 h at RT for each coat.

Water absorption ISO 62	96 h at 25°C	%	2.5
Flexibility (Mandrel Test)	3 mm mandrel		No cracking
Tracking Index	IEC 60112	at 200 V No. of drops	> 200
Volume resistivity at 500 V DC as per IEC 60455-2	at R.T. after 168 h water immersion at R.T.	Ohm.cm	10 ¹⁵ 10 ¹⁵
Dielectric loss factor 30 V/1 kHz as per IEC 60455-2	at R.T at 130°C	—	0.018 0.084
Dielectric constant at 30 V/1 kHz as per IEC 60455-2	at R.T at 130°C	—	3.0 3.5
Dielectric strength as per IEC 60455-2	at R.T. after 24 h water immersion at RT	kV/mm	115 100

10. Packaging

Varnish: 200 L, 20 L Drum, 5 L x 4 Jar, 1 L x 20 bottle, 500 ml x 40 Bottle, 200 ml x 100 Bottle.
Thinner: 200 L, 20 L Drum.