

ABOUT US



Neo Pack Plast (India) Pvt. Ltd., established in 1978 for manufacture of MS Barrels, is a family run business. Its founder Mir Aziz Khan started this venture for manufacture of MS Barrels, made steady progress and steered ahead the company to a leading multiproduct company. Today Neo as a company has diversified into Synthetic Resins, Paints, LDPE & PP Liner Bags, Construction Chemicals, Insulating Varnishes.

Neo also has proved to be a good manufacturing organization with expertise in Product Development / Sourcing & Inventory management / Quality Consistency. As a result Neo has is most sought outsourcing vendor for few big corporate.

As part of diversification, NEO entered into manufacture of Insulating Varnishes in the year 2013 under brand **NEOVAR**. This business will focus on manufacture of versatile product range in the Electrical Insulating Varnish Segment.

Neo Pack Plast (India) Pvt. Ltd., strategically located in Central Vapi, Gujarat with one more additional unit in Daman (UT) today can boast of having

- ❑ SUPER INFRASTRUCTURE - Skilled Manpower / Spacious Storage facilities for RM & FG/ State of The art machinery and Fully equipped laboratory.
- ❑ STRONG R&D SETUP - Qualified manpower / Quality machinery as per global standard / Focussed team for each product range
- ❑ STRONG SALES & MARKETING TEAM - Spread across India with Branches / Representatives in Gujarat, Maharashtra, Delhi & NCR, Punjab, Orissa, UP, Kerala.

Neo's INSULATING VARNISH DIVISION is a venture under Neo Pack Plast (India) Ltd and is involved in the

- ❑ Manufacture of Synthetic Resin Based Varnishes
- ❑ Manufacture of Epoxy based Impregnating Varnishes
- ❑ Manufacture of both Air Drying & Baking Type Varnishes
- ❑ Varnishes of All insulation Classes like Class B/ E / F / . H
- ❑ Manufacture of Associated Thinner for Varnish
- ❑ Neo has a strong resourceful R&D team to customize new product as per customer need.

OUR INSULATING VARNISH PRODUCT RANGES

- | | |
|---------------------------------------|--------------------------|
| ❑ B CLASS AIR DRYING VARNISH | ❑ B CLASS BAKING VARNISH |
| ❑ F CLASS AIR DRYING & BAKING VARNISH | ❑ F CLASS BAKING VARNISH |
| ❑ B CLASS FINISHING VARNISH | ❑ H CLASS BAKING VARNISH |
| ❑ EPOXY RESIN & HARDNER POTTING | ❑ SLEEVE VARNISH |
| ❑ THINNERS | ❑ SPECIAL PRODUCTS |

MANUFACTURED BY



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AUTHORIZED DISTRIBUTOR

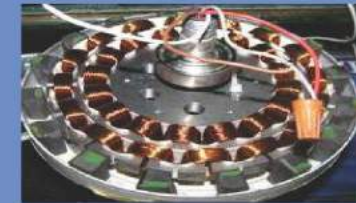


ELECTRICAL INSULATING VARNISH

product guide



Redefining Insulation





NeoVar B 301

B Class Air Drying

- ❖ Good Bonding-Firmly bonds the wires
- ❖ Provides Stable Hardness
- ❖ Resists hot transformer oil
- ❖ Dries fast ensuring rapid service to customers
- ❖ Durable Insulation
- ❖ Excellent Water Resistance

Product Description

NeoVar B 301 is a synthetic resin based, fast drying Insulating Varnish providing B class (Temp. Index 130°C) insulation. The product is specially designed to provide good insulation and longer life to windings. The product is very cost effective and durable.

Application Areas

NeoVar B 301 finds extensive use in the manufacture of Fans, Motors, Stators, Transformers, Radiators etc. Typical applications are in medium and low voltage stator winding of motors, fans, field coils, transformers and chokes. Its good water / moisture resistance makes it ideal for water pump motor. Its quick drying property not only makes it useful as a finishing varnish but also makes it preferable for the rewinders to repair the stators and transformers.

Technical Data

Properties	Method	Standard Values
Colour	---	Amber Golden
Viscosity	F/C B - 4/ at 30°C	55 ± 5 secs
Sp. Gravity	at 30°C	0.90 ± 0.02
Non Volatile matter	2gms/120°C/1hr	30 ± 2%
Flash Point	Open Cup	38°C
Effect on enameled wire	---	No reaction
Reaction of Varnish with Copper	---	No reaction
Compatibility with Thinner	Varnish:Thinner	1:8 min
Drying Properties		
Touch Dry	At RT	30 - 45 min.
Drying Time in thin layer	At RT	90 -120 min.
Recommended drying schedule	8-10 hrs At RT or 30 min. at RT & then 4 hrs @100°C	
Specimen curing	At RT	24 hrs
Properties of cured film		
Flexibility	Mandrel apparatus	No crack observed
Dielectric strength	@ 30°C	65 KV/mm
	@ 130°C after 24 hrs immersion in water	32 KV/mm 28 KV/mm
Effect of Transformer oil		No effect
All the testing have done as per IS : 10026 (Part III) - 1983		

Surface Preparation & Application Method

Ensure before application, wire windings are free from moisture and other impurities. NeoVar B 301 can be applied by any suitable method like brushing / pouring / dipping / impregnation.

Packing, Storage & Shelf life

Available in 200 ml, 500ml, 1000 ml, 5 ltr, 21 kg & 180 kg pack sizes. Store in a cool & dry place. Shelf life - 1 year from date of manufacture in original sealed container at Room Temperature.

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NeoVar GREY/RED

Air Drying Finishing Varnish

- ❖ Air Drying type as such convenient
- ❖ Provides highly durable insulation
- ❖ Exhibits moisture resistance
- ❖ Quick Drying
- ❖ Provides Grey/Red Shiny Surface Finish
- ❖ Excellent Tracking Resistance

Production Description

NeoVar GREY/RED is a synthetic resin based, Class B (Temp. index 130°C) quick air-drying finishing varnish. It gives grey/red opaque glossy finish to electrical machines. Characterized by its quick drying property and good moisture resistance, it also ensures high insulation even at elevated temperature & under water / moisture conditions. The cured film has good resistance to weak acid and alkali. It protects from ingress of moisture and has good track resistance. The viscosity can be adjusted with Neo-Thin 2000 if required for application by spraying technique.

Application Areas

NeoVar GREY/RED finds use for all kinds of motors, alternators, generators, fans, and transformers and chokes as finishing varnish.

Technical Data

Properties	Method	Standard Values
Colour	---	Grey/Red Opaque Liquid
Viscosity	F/C B - 4/ at 30°C	120-150 secs
Sp. Gravity	at 30°C	1 approx
Non Volatile matter	2gms/120°C/1hr	55 ± 3%
Gloss	Compare with Standard	Glossy
Compatibility with Thinner	Varnish:Thinner	1:8 max
Drying Properties		
Drying Time	At RT	1 - 3 hours (tackfree)
Recommended drying schedule	24 hrs At Room Temperature or 16 hrs @ RT & 4 - 6 hrs @ 60-80°C	
Properties of cured film		
Flexibility	Mandrel apparatus	No crack observed
Dielectric Strength	At RT after 24 hrs immersion in water	50 KV/mm 40 KV/mm
	500 V DC @ RT 168 hrs water immersion	10 ¹⁴ ohm cm 10 ¹⁵ ohm cm
Effect of Transformer Oil		No effect
Water Resistance	48 hrs dipped in water	No blister mark or peel off
Pencil Hardness		Passes 6H
Tracking Index	Number of Drops	More than 300
All the testing have done as per IS : 10026 (Part III) - 1983		

Surface Preparation & Application Method

Ensure before application, surfaces are free from moisture and other impurities. NeoVar GREY/RED can be applied by any suitable method like brushing / spraying. Suitable viscosity for application can be obtained by thinning with compatible thinner

Packing, Storage & Shelf life

NeoVar GREY/RED is available in 500 gm, 1 kg, 21 kg & 200 kg. pack sizes. Store in Cool and Dry place. Shelf life - 1 year from the date of manufacture in original sealed container at Room Temperature.

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Neo-Thin NeoVar Thinner

- ❖ Specially formulated Thinners for Insulating varnish
- ❖ Good compatibility to NeoVar varnishes
- ❖ Acts fast as it is matched to respective varnish and does not affect end properties

Product Description

Neo-Thin graders are specially formulated thinners for respective insulating varnishes. These are made of combination of various organic solvents. It is available in different grades according to nature of varnish.

Application Areas

Neo-Thin graders are used for thinning the NeoVar varnishes for adjustment of viscosity by the customers to meet the requirement of end use.

Technical Data

Properties	Method	Neo-Thin 2000	Neo-Thin 5000
Appearance	----	Clear Colourless Liquid	Clear Colourless Liquid
Viscosity	F/C B-4/ at 30°C	11-12 secs	11-12 secs
Sp. Gravity	at 30°C	0.81 ± 0.01	0.81 ± 0.01
Flash Point	Open Cup	Minimum 25 °C	Minimum 25 °C
Compatibility with Varnish		NeoVar B 301 / B 302 / AD 401 / AD 402 / AD 403 / F502	NeoVar F 501 / B 303

Method of use

It is suggested that for convenience of application viscosity adjustment with appropriate thinner as per recommendation dosage be done. Normally the advisable dosage is in the ratio of 3 parts of varnish to 1 part of thinner.

Packing, Storage & Shelf life

Available in 5 ltr, 20 ltr and 200 ltr pack sizes. Store in Cool and Dry place.
Shelf life - 1 year from the date of manufacture in original sealed container at Room Temperature.



NeoVar B 302 B Class Air Drying

- ❖ Good Bonding-Firmly bonds the wires
- ❖ Provides Stable Hardness
- ❖ Resists hot transformer oil
- ❖ Dries fast ensuring rapid service to customers
- ❖ Durable Insulation
- ❖ Excellent Water Resistance

Product Description

NeoVar B 302 is a synthetic resin based air drying varnish providing Class B (Temp. Index 130°C) insulation. It dries fast and cures to form a amber golden colour film over wire windings. Its other features are durable insulation and quick baking property. Its ability to penetrate deep ensures complete insulation even at inaccessible areas thereby giving longer life to winding.

Application Areas

NeoVar B 302 is suitable for medium and low voltage stator winding of motors, fans, field coils, transformers and chokes. It is also used for finishing varnish for windings and electrical components. It is widely used by rewinders for the repairing of motor stators, fans and choke windings. Its resistance to hot transformer oil makes it suitable for transformers.

Technical Data

Properties	Method	Standard Values
Colour	----	Amber Golden
Viscosity	F/C B - 4/ at 30°C	60 - 70 secs
Sp. Gravity	at 30°C	0.86 ± 0.01
Non Volatile matter	2gms/120°C/1hr	41 ± 1%
Flash Point	Open Cup	38°C
Effect on enameled wire	----	No Reaction
Reaction of Varnish with Copper	----	No Reaction
Compatibility with Thinner	Varnish:Thinner	1:8 min
Drying Properties		
Touch Dry	At RT	60 min
Drying Time in thin layer	At RT	180 min
Recommended drying schedule	20 hrs At Room Temperature or 30 min. @ R/T & then 3 hrs @ 105°C	
Properties of cured film		
Flexibility	Mandrel apparatus	No crack observed
Dielectric Strength	@ 30°C	60 KV/mm
	@ 130°C after 24 hrs immersion in water	26 KV/mm 23 KV/mm
Effect of Transformer Oil		No effect
All the testing have done as per IS : 10026 (Part III) - 1983		

Surface Preparation & Application Method

Ensure before application, wire windings are free from moisture and other impurities. NeoVar B 302 can be applied by any suitable method like brushing / pouring / dipping / impregnation.

Packing, Storage & Shelf life

Available in 1000 ml, 21 kg & 180 kg pack sizes. Store in Cool and Dry place.
Shelf life - 1 year from the date of manufacture in original sealed container at Room Temperature.

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NeoVar B 303

B Class Baking Impregnating Varnish (High Insulation)

- ❖ Good Bonding-Firmly bonds the wires
- ❖ Excellent Stony Hardness
- ❖ Resists hot transformer oil / mild / alkalis
- ❖ Dries fast ensuring rapid service to customers
- ❖ Highly Durable Insulation
- ❖ Excellent Moisture Resistance

Product Description

NeoVar B 303 is an isophthalic alkyd resin based Class B (Temp. Index 130°C) baking impregnating varnish. It has high insulation properties even when maintained at high temperature and under humid conditions. It gives stable bonding and stony hardness to the wire windings.

Application Areas

NeoVar B 303 is used for high voltage machines & equipments that function continuously. It is suitable for windings of all range of motors, alternators, generator coils, transformers, fans & chokes. It is useful in railway auxiliaries. It is best to maintain insulation in equipment operating continuously at high temperature & humidity.

Technical Data

Properties	Method	Standard Values
Colour	----	Clear Brownish Liquid
Viscosity	F/C B - 4/ at 30°C	60 - 65 secs
Sp. Gravity	at 30°C	0.92 ± 0.01
Non Volatile matter	2gms/120°C/1hr	46 ± 2%
Flash Point	Open Cup	23°C
Effect on enameled wire	----	No Reaction
Reaction of Varnish with Copper	----	No Reaction
Compatibility with Thinner	Varnish:Thinner	1:infinite
Drying Properties		
Drying Time in thin layer	At 120°C for 3 hrs.	Non tacky
Curing in thick layer	At 120°C for 12 hrs.	Smooth Top; Non-Tacky Underneath ; Hard, Tough inside
Resoftening	At 165°C for 1 hrs.	No change
Recommended drying schedule		4 hrs. at 120°C
Properties of cured film		
Dielectric Strength	@ 30°C @ 155°C after 24 hrs immersion in water	70 KV/mm 66 KV/mm 46 KV/mm
Volume Resistivity	500 VDC in air After 168 hrs immersion in water	8.9 x 10 ¹⁵ ohm-cm 6.7 x 10 ¹⁴ ohm-cm
Dissipation Factor	230 V / 50Hz / 30°C	0.0245
Dielectric Constant	230 V / 50Hz / 30°C	2.57
Temperature Index	By TGA in air (Specimen Post Cured at 140°C for 16 hrs.)	169.9°C
All the testing have done as per IS : 10026 (Part III) - 1983		

Surface Preparation & Application Method

Ensure before application, wire windings are free from moisture and other impurities. NeoVar B 303 can be applied by any suitable method like brushing / pouring / dipping / impregnation.

Packing, Storage & Shelf life

Available in 21 kg & 180 kg pack sizes. Store in Cool and Dry place.

Shelf life - 1 year from the date of manufacture in original sealed container at Room Temperature.

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NeoPoxy Resin 901 & Hardener 91

- ❖ Air Drying type as such convenient
- ❖ Has good Electrical & Mechanical properties
- ❖ Exhibits high resistance to humidity
- ❖ Exhibits high resistance to hot transformer oil
- ❖ Good Flexibility
- ❖ Excellent Chemical Resistance

Product Description

NeoPoxy Resin 901 is a solvent less liquid epoxy resin & NeoPoxy Hardener 91 is an amine adduct. NeoPoxy resin along with NeoPoxy Hardener react by cross linking to form cured hard mass at room temperature.

Application Areas

NeoPoxy Resin 901 & Hardener 91 system finds use in potting and encapsulation application in HV generators & transformers. Also finds application as a casting resin compound. Suitable for application as a binder resin for windings of transformer coils.

Technical Data

Properties	Standard Values	
	NeoPoxy Resin - 901	NeoPoxy Hardener - 91
Colour and Appearance	Colorless to brownish viscous liquid	Brown Yellow clear liquid
Epoxy Equivalent weight	185 - 205	
Amine value (mgKOH/g)	----	400 - 450
Viscosity at 30°C by Brookfield viscometer	70 - 150 poise	100 - 300 poise
Specific Gravity @ 25°C	1.15 ± 0.05	1.15 ± 0.05
Volatile matter 1g/120°C/2 hrs.	1.0% Max	
Flash Point	> 100° C	> 100° C
Reaction of varnish with copper	No reaction	
Effect on enamel wire	No effect	
Drying Properties		
Mixing Ratio 100 : 60	Pot Life @ RT 20 - 30 minutes	
Drying Time at room temperature	2 hrs	
Specimen curing	48 hrs @ RT + 4 hrs @ 80° C	
Electrical Properties		
Dielectric Strength	25 KV/mm @ RT (room temperature)	
Volume resistivity	1 x 10 ¹¹ Ohm - cm @ RT (room temperature)	
Comparative Tracking Index	> 600Volts	
Heat Distortion temperature (martens)	145° C	
All the testing have done as per IS : 10026 (Part III) - 1983		

Surface Preparation & Application Method

Ensure before application, wire windings are free from moisture and other impurities. NeoPoxy mixed compound can be applied by any suitable method like brushing / pouring / VPI. Suitable viscosity for application can be obtained by thinning with compatible thinner

Packing, Storage & Shelf life

NeoPoxy Resin 901 is available in 230 kg & NeoPoxy Hardener 91 is available in 200 / 230 kg pack sizes. Store in Cool and Dry place.

Shelf life - 1 year from the date of manufacture in original sealed container at Room Temperature.

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NeoVar F 502 F Class Air Drying

- ❖ Strong bonding hence firmly holds the wires
- ❖ Stony Hardness
- ❖ Resists hot transformer oil / mild acids & alkalis
- ❖ Dries fast ensuring rapid service to customers
- ❖ Durable Insulation
- ❖ Excellent Heat & Moisture Resistance
- ❖ Exhibits good flexibility
- ❖ Excellent electrical & Anti tracking properties

Product Description

NeoVar F 502 is an isophthalic alkyd resin based Class F (Temp. Index 155°C) air drying type impregnating varnish. It exhibits excellent dielectric properties under humid condition, good bond and adhesive strength. Its stony hardness & good flexibility protects the wire winding from external shocks.

Application Areas

NeoVar F 502 is suitable for insulating all kinds of electrical windings where additional protection is desired. Finds use as a air drying varnish for coil winding & for insulation board mould making.

Technical Data

Properties	Method	Standard Values
Colour	----	Reddish color Liquid
Viscosity	F/C B - 4/ at 30°C	60 - 70 secs
Sp. Gravity	at 30°C	0.93 ± 0.02
Non Volatile matter	2gms/120°C/1hr	52 ± 2%
Flash Point	Open Cup	Minimum 28°C
Effect on enameled wire	----	No Reaction
Reaction of Varnish with Copper	----	No Reaction
Compatibility with Thinner	Varnish:Thinner	1.infinite
Drying Properties		
Drying Time in thin layer	Surface Dry Tack free	10 - 15 min. 60 - 90 min
Resoftning	At 165°C	No change
Recommended drying schedule	4-6 hrs At Room Temperature or 3 - 4 hrs. at 70°C	
Electrical Properties		
Dielectric Strength	@ RT @ 155°C after 24 hrs immersion in water	90 KV/mm 65 KV/mm 60 KV/mm
Volume Resistivity	500 VDC in air	2.2 x10 ¹² ohm-cm
Temperature Index	By TGA in air	156°C
Properties of cured film		
Effect of Transformer oil		No effect
Flexibility	Mandrel apparatus	No crack observed
All the testing have done as per IS : 10026 (Part III) - 1983		

Surface Preparation & Application Method

Ensure before application, wire windings are free from moisture and other impurities. NeoVar F 502 can be applied by any suitable method like brushing / pouring / dipping / impregnation.

Packing, Storage & Shelf life

NeoVar F 502 is available in 1000 ml, 21 kg, 180 kg pack size. Store in Cool and Dry place.
Shelf life - 1 year from the date of manufacture in original sealed container at Room Temperature.

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NeoVar AD 401 B Class Fast Air Drying Gold

- ❖ Rapid Drying as such ensures quick service
- ❖ High Bonding and hence firmly holds the wires
- ❖ Resists Moisture / hot transformer oil / mild acids, alkalis
- ❖ Provides shiny surface finish
- ❖ Ability to penetrate deep
- ❖ Durable Insulation & Stable Hardness
- ❖ Excellent Electrical Properties

Product Description

NeoVar AD 401 is a Phenolic resin based quick air drying varnish providing Class B (Temp. index 130°C) insulation. Its unique blend of properties makes it suitable for versatile application. The product due to its quick baking property, increase productivity & reduces electricity consumption. Ensures durable insulation at elevated temperature of 130°C & even under humid conditions. Ensures 100% insulation even at inaccessible areas due to its deep penetration property & thus provides longer life to winding.

Application Areas

NeoVar AD 401 finds use in insulation of motors, alternators, generators, fans, transformers and chokes. Also finds application in windings, electric components, phenolic laminates & moulding, circuit boards, stamping stacks etc. as a finishing varnish. It is best suited for rewinding in all types of winding, small armatures, high speed motors, oil cooled transformer & applications under chemically aggressive atmosphere. The product yields superior results if a drying schedule of 30 mins. in air & then 2-3 hrs. at 110 - 120°C is followed.

Technical Data

Properties	Method	Standard Values
Colour	----	Golden Yellow Liquid
Viscosity	F/C B - 4/ at 30°C	25 - 35 secs
Sp. Gravity	at 30°C	0.89 ± 0.02
Non Volatile matter	2gms/120°C/1hr	46 ± 1%
Flash Point	Open Cup	38°C
Effect on enameled wire	----	No Reaction
Reaction of Varnish with Copper	----	No Reaction
Compatibility with Thinner	Varnish:Thinner	1:8 min.
Drying Properties		
Touch Dry	At RT	30 - 40 min.
Drying Time in thin layer	At RT	90 - 100 min
Recommended drying schedule	4-6 hrs At Room Temperature or 3 - 4 hrs. at 70°C	
Properties of cured film		
Flexibility	Mandrel apparatus	No crack observed
Dielectric Strength	@ 30°C @ 130°C after 24 hrs immersion in water	73 KV/mm 58 KV/mm 43 KV/mm
Effect of Transformer oil		No effect
Temperature Index	By TGA in air	175°C
All the testing have done as per IS : 10026 (Part III) - 1983		

Surface Preparation & Application Method

Ensure before application, wire windings are free from moisture and other impurities. NeoVar AD 401 can be applied by any suitable method like brushing / pouring / dipping / impregnation.

Packing, Storage & Shelf life

Available in 200 ml, 500 ml, 1000 ml, 21 kg & 180 kg pack sizes. Store in a cool & dry place
Shelf life - 1 year from the date of manufacture in original sealed container at Room Temperature.

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NeoVar AD 403

B Class Air Drying

- ❖ Rapid Drying as such ensures quick service
- ❖ High Bonding and hence firmly holds the wires
- ❖ Resists Moisture / hot transformer oil / mild acids, alkalis
- ❖ Ability to penetrate deep
- ❖ Durable Insulation & Stable Hardness
- ❖ Excellent Electrical Properties

Product Description

NeoVar AD 403 is a synthetic resin based air drying varnish providing Class B (Temp. Index 130°C) insulation. The product due to its quick baking property increase productivity & reduces electricity consumption. Ensures 100% insulation even at inaccessible areas due to its deep penetration property & thus provides longer life to winding.

Application Areas

NeoVar AD 403 finds extensive use in the manufacture of Fans, Motors, Stators, Transformers etc. Typical applications are in medium and low voltage stator winding of motors, fans, field coils, transformers and chokes. Its good water / moisture resistance makes it ideal for water pump motor. Its quick drying property along with golden color makes it useful as a finishing varnish. It is also used for repairing of motor stators and transformers as it is resistant to hot transformer oil like in transformer tanks. Suitable for applications under chemically aggressive atmosphere. It is useful as a finishing varnish.

Technical Data

Properties	Method	Standard Values
Colour	----	Golden Yellow Liquid
Viscosity	F/C B - 4/ at 30°C	25 -30 secs
Sp. Gravity	at 30°C	0.87 ± 0.01
Non Volatile matter	2gms/120°C/1hr	35 ± 1%
Flash Point	Open Cup	38°C
Effect on enameled wire	----	No Reaction
Reaction of Varnish with Copper	----	No Reaction
Compatibility with Thinner	Varnish:Thinner	1:8 min.
Drying Properties		
Touch Dry	At RT	15 - 30 min.
Drying Time in thin layer	At RT	60 - 90 min
Recommended drying schedule	8-10 hrs At Room Temperature or 30 min. at R/T & then 4 hrs. at 100°C	
Properties of cured film		
Flexibility	Mandrel apparatus	No crack observed
Dielectric Strength	@ 30°C	65 KV/mm
	@ 130°C after 24 hrs immersion in water	32 KV/mm 28 KV/mm
Effect of Transformer oil		No effect
Temperature Index	By TGA in air	162°C
All the testing have done as per IS : 10026 (Part III) - 1983		

Surface Preparation & Application Method

Ensure before application, wire windings are free from moisture and other impurities. NeoVar AD 403 can be applied by any suitable method like brushing / pouring / dipping / impregnation.

Packing, Storage & Shelf life

Available in 1000 ml, 5 ltr, 21 kg, 180 kg pack sizes. Store in a cool & dry place
Shelf life - 1 year from the date of manufacture in original sealed container at Room Temperature.

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NeoVar F 501

F Class Baking

- ❖ High bond strength hence firmly holds the wires
- ❖ Stony Hardness
- ❖ Resists hot transformer oil / mild acids & alkalis
- ❖ Dries fast ensuring rapid service to customers
- ❖ Durable Insulation
- ❖ Excellent Heat & Moisture Resistance
- ❖ Exhibits good flexibility
- ❖ Excellent electrical properties

Product Description

NeoVar F 501 is an isophthalic alkyd resin based baking type impregnating varnish providing F Class (Temp. Index 155°C) insulation. It exhibits excellent dielectric properties under humid condition, good bond and adhesive strength. Its stony hardness & good flexibility protects the wire winding from external shocks.

Application Areas

NeoVar F 501 is suitable for insulating all kinds of motors & alternators specially AC induction motors, transformers, fans & chokes. It is recommended for Railway and Navy auxiliaries. Useful for impregnation of stators, rotors, generators etc. Used to maintain insulation in equipment operating continuously at high temperature & humidity.

Technical Data

Properties	Method	Standard Values
Colour	----	Amber Golden
Viscosity	F/C B - 4/ at 30°C	50 - 60 secs
Sp. Gravity	at 30°C	0.90 ± 0.01
Non Volatile matter	2gms/120°C/1hr	48 ± 1%
Flash Point	Open Cup	23°C
Effect on enameled wire	----	No Reaction
Reaction of Varnish with Copper	----	No Reaction
Compatibility with Thinner	Varnish:Thinner	1:8
Drying Properties		
Drying Time in thin layer	At 120°C for 3 hrs.	Non tacky
Curing in thick layer	At 120°C for 12 hrs.	Smooth Top; Non-Tacky Underneath ; Hard, Tough inside
Resoftening	At 165°C	No change
Specimen Curing		12 hrs. at 120°C
Recommended drying schedule	10-12 hrs at 120°C or 2 hrs. at 120°C & then 4 hrs at 150°C	
Properties of cured film		
Dielectric Strength	@ 30°C	75 KV/mm
	@ 155°C	70 KV/mm
Volume Resistivity	500 VDC in air After 168 hrs immersion in water	4.2 x 10 ¹⁵ ohm-cm 2.2 x 10 ¹⁴ ohm-cm
Dissipation Factor	230 V / 50Hz / 30°C	0.0120
Dielectric Constant	230 V / 50Hz / 30°C	2.90
Temperature Index	By TGA in air (Specimen Post Cured at 165°C for 16 hrs.)	164.4°C
All the testing have done as per IS : 10026 (Part III) - 1983		

Surface Preparation & Application Method

Ensure before application, wire windings are free from moisture and other impurities. NeoVar F 501 can be applied by any suitable method like brushing / pouring / dipping / impregnation.

Packing, Storage & Shelf life

NeoVar F 502 is available in 1000 ml, 21 kg, 180 kg pack size. Store in Cool and Dry place.
Shelf life - 1 year from the date of manufacture in original sealed container at Room Temperature.

The details contained in this document are as a result of our experiments & experience and have been submitted in good faith. Because of the diversity of the material and substrates and the great number of possible application, which are out of our control, we cannot accept any responsibility for result obtained. In every case it is recommended to carry out preliminary experiments before actual use.