
Synthite AC-43 Air drying varnish

Synthite AC-43 is a clear, air drying electrical insulation varnish on basis of modified polyester, suitable for class H.

Attributes

Synthite AC-43 has the following excellent properties:

- UL-approved
- very fast air drying
- excellent chemical resistance
- solderable
- excellent adhesion
- good penetration
- transformer oil resistance ASTM D 155-55
- corrosion and humidity resistance

Application

Typical applications for Synthite AC-43 are:

- stators
- printed circuit boards
- form wound coils
- resistors
- transformers
- capacitors

Standards

Class H (180 °C) UL-file-no. OBOR2.E317427 and OBJS2.EB17429.

Magnet wire Twisted pairs Helical coils

MW 24-C 155 °C 155 °C

MW 28-C 130 °C 130 °C

MW 35-C 180 °C 180 °C

Delivery forms

Colour: clear

4.5 kg, 22.5 kg and spray bottles on request.

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Updated 04/24



Storage

Synthite AC-43 can be stored at room temperature and in closed containers for up to 24 months (max. 30 °C). The varnish has to be stored in cold, dry places, protected against direct sunlight.

Hardening

Air drying time (on copper plate):

10 min. - set to touch

Protection

Use in well ventilated area, avoid contact with skin and eyes and wear protective clothes. Please observe the safety data sheet.

Processing

Synthite AC-43 may be applied by dipping, brushing or spraying as supplied.

For fast conveyor application, the following cycle is recommended:

1. Preheat units for 10 min. at 110 °C
2. Dip into the varnish for 30 sec.
3. Drain 10-20 min.
4. Bake 60-90 min. at 110 °C

For this type of cycle Synthite AC43 should be diluted 10-15 % with Dolph's® T-200 thinner.

Mechanical	Unit of measure	Conditions	Values	Test method
Coating thickness	µm		75-100	ASTM D-115-55

Electrical	Unit of measure	Conditions	Value	Test method
Dielectric strength	kV/mm	dry / 25 °C	80	ASTM D-115
Dielectric strength	kV/mm	after 24h water storage / 25 °C	48	ASTM D-115
Creep resistance		CTI	600	IEC 60112

Chemical	Conditions	Blistering	Rusting	Cracking	Test method
Resistance	Water	no	no	no	ISO 4628/2-3-4
Resistance	10 % Sulfuric acid	no	no	no	ISO 4628/2-3-4
Resistance	1 % Sodium hydroxide	no	no	no	ISO 4628/2-3-4
Resistance	Salt water	no	no	no	ISO 4628/2-3-4

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Liquid phase	Unit of measure	Conditions
Viscosity	s	25 °C
Viscosity	s	25 °C
Specific density	g/cm ³	25 °C

Liquid phase	Unit of measure	Values	Test method
Viscosity	s	50-70	ISO Cup 4
Viscosity	s	18-24	Ford Cup 4
Specific density	g/cm ³	0.87-0.93	

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