
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.

Storage

Synthite AC-43 can be stored at room temperature and in closed containers for up to 36 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

Baking of 20-30 min. at 150 °C will provide a film with optimum toughness and bond strength.

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	Bedingung	Werte	Prüfmethode
Coating thickness	µm		75-100	ASTM D-115-55

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

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

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Updated 05/20



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/l	900±30	

Electrical	Unit of measure	Conditions	Value	Test method
Dielectric strength	kV/mm	dry / 0.025 mm film thickness	80	ASTM D-115
Dielectric strength	kV/mm	after 24h water storage / 0.025 mm film thickness	48	
Creep resistance		CTI	600 M	IEC 60112

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