

Data sheet: Synthite ER-41

Synthite ER-41 Polyurethane enamel varnish

DESCRIPTION

Synthite ER-41 is a red, fast-drying insulating varnish with high chemical and heat resistance. No corrosion effects on copper.

PROPERTIES

Synthite ER-41 has the following excellent properties:

- very fast drying
- excellent chemical resistance
- oil and moisture resistant
- hard, smooth, abrasion resistant film
- excellent adhesion
- transformer oil resistance ASTM D 115-55
- corrosion and humidity resistance

APPLICATION

Synthite ER-41 is mainly applied in:

- stator coils
- transformer coils
- armature coils
- bus bars
- field coils
- control coils
- collector rings interior of oil tanks
- interior of oil tanks

STANDARDS

- Class H (180 °C) UL-File-Nr. OBOR2.E317427
- MW 35-C: 180 °C
- MW 28-C: 130 °C

DELIVERY FORMS

5 kg, 25 kg container and spray bottles.

COLOR

Red

STORAGE

Shelf life of ER-41 is 24 months when stored in original closed containers at max. 30 °C protected from direct sunlight and moisture.

PROCESSING

For spraying applications Synthite ER-41 must be thinned with 15 % of Dolph's® T-200 thinner. It is supplied with a viscosity suitable for application by brush.

Please observe the respective safety data sheet.

HARDENING

Air-drying time on copper plate: 60 sec. set to touch

PRECAUTIONS FOR USE

The use of EPOXAL 9009/C varnish does not require any special precautions, but simply compliance with occupational hygiene standards. Work in ventilated areas, avoid contact with skin. In case of contact with eyes, wash immediately with water and seek medical advice.

Our products are intended for industrial use. Please refer to the Safety Data Sheet for further information.

CHARACTERISTICS

Physical properties	Unit of measure	Conditions	Value	Test method
Color			Red	
Specific density	g/l	25 °C	900-1000	
Viscosity	second	25 °C	90-120	Ford Cup 4
Film thickness (double layer)*	µm		75-100	ASTM D-115-55
Drying time (copper plate)	minutes		Dry to touch: 60	
Solvent			DOLPH'S T-200	

*40µm film, drying 24h@25°C + 24h@60°C.

Electrical properties	Unit of measure	Conditions	Value	Test method
Dielectric strength:	kV/mm	after 24 h water immersion / 0.025 mm film thickness	80	ASTM D-115
Dielectric strength:	kV/mm	trocken / 0.025 mm film thickness	48	ASTM D-115

Chemical resistance	Blistering	Rusting	Cracking	Test method
Salt water	no	no	no	ISO 4628/2-3-4
Water	no	no	no	ISO 4628/2-3-4
10 % sulfuric acid	no	no	no	ISO 4628/2-3-4
1 % NaOH dilution	no	no	no	ISO 4628/2-3-4
IEC 60296 transformer oil			Test OK	ASTM D 115-55
Corrosion resistance (salt fog)		heures	200	ISO 9227
Humidity resistance		heures	72	ISO 6270

Thermal properties	Unit of measure	Value	Test method
Thermal class	UL 1446		
Twisted Pairs	MW 28-C	°C	130
	MW 35-C	°C	180

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