Data sheet: Synthite ER-43/368-D

Designation Synthite ER-43/368-D
Solvent Borne Polyester Air-Drying Enamel Red

DESCRIPTION

Synthite ER-43/368-D is a red high temperature polyester insulating enamel that dries rapidly at ambient temperatures forming a tough, flexible film with excellent moisture and chemical resistance.

PROPERTIES

Synthite ER-43/368-D has the following excellent properties:

- UL Certified – File OBOR2.E317427
- Suitable for use up to 180oC (Class H) - UL File OBOR2.E317427
- Included in UL Electrical Insulation System up to 180oC - File OBJS2 - E317429
- Easily applied by brush, dip or spray
- Quick air-drying film
- Excellent hiding power
- Oil & moisture resistant
- Exceptional abrasion resistance
- Good adhesion to a variety of substrates

CHARACTERISTICS

Physical properties	
Color	Red
Specific gravity @ 25oC	1100 ± 50g/L
Viscosity, DIN No4 Cup @ 25oC	110 - 150 seconds
Build, DFT (ASTM D-115)	0.075 - 0.100mm
Corrosive effect on copper	None
Air-drying time on copper strip set to touch	60 minutes
Thinner	T2 or T-200
Shelf life @ 25oC in original closed containers	36 months
Pack sizes	1Kg, 5Kg, 25Kg & 400ml DOLPH-SPRAY® Aerosols

Electrical properties	
Electric strength, dry (ASTM D-115)	2,000 Volts/0.025mm
Electric strength, 24 hours in water (ASTM D-115)	1,200 Volts/0.025mm
CTI (IEC 60112)	600V

Chemical resistance (ISO 2812 method 2, 168-hour exposure and on dried film thicknesses of 40 µm. Drying: 24h @ RT + 24h @ 60°C),				
	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 IEC 60296, ASTM D 115-55			Test OK	ASTM D 115-55
Corrosion resistance (salt fog)		hours	200	ISO 9227
Humidity resistance		hours	72	ISO 6270

Thermal class (UL 1446 FILE OBOR2.E317427)	
Twisted pairs, MW28C magnet wire	130°C
Twisted pairs, MW24C magnet wire	155°C
Twisted pairs, MW35C magnet wire	180°C

APPLICATION

SYNTHITE ER-43/368-D Red Insulator varnish dries quickly to a smooth, uniform finish that provides exceptional abrasion resistance and excellent adhesion to a wide range of surfaces. It is used as a protective coating for field windings, control windings, motor windings, switch terminals, slip rings, copper sections, regulators, control blocks, oil tank interiors, switch brackets, molded Bakelite, solenoid windings and more. Generally used for:

• Buss bars • Electronics & PCB's • Solenoid coils	• Field coils • Stator coils • Electric motor cores/frames	• Soldered joints • Electrical connections • Commutator ends	• Molded SRBP/SRBF • Fuse tubes • Transformer coils

STORAGE

Store in a cool place away from direct sunlight and heat sources. Kept in the conditions in which it is supplied, the varnish will keep unaltered at temperatures of 30°C or below for 24 months.

PROCESSING.

SYNTHITE ER-43/368-D is supplied at the right viscosity for brush application. For spray gun application, it must be diluted with approximately 15% Dolph's T-200 solvent. Please observe the respective safety data sheet.

HARDENING

CURE SCHEDULE	
Surface dry @ 20°C	30 - 45 minutes
Full properties @ 20°C	24 hours

PRECAUTIONS FOR USE

Synthite ER-43/368D is intended for professional industrial use. Please refer to the Material Safety Data Sheet for full details. Our products are intended for industrial use. Please refer to the Safety Data Sheet for further information.

Liability