



TECHNICAL DATA SHEET

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SYNTHITE® ER-41

RED AIR DRYING VARNISH

PRODUCT DESCRIPTION

ER-41 is a high temperature; fast cure, air dry, polyurethane varnish, and is an excellent insulator coating for all electrical and electronic parts. SYNTHITE® ER-41 is also available as DOLPH - SPRAY® ER-41.

FEATURES & BENEFITS

- Fast drying
- Ease of Application
- High temperature rating
- Excellent chemical resistance
- UL recognized systems
- Excellent hiding power for rebuilding and manufacturing applications
- Oil and moisture resistant
- Superior abrasion resistance
- Excellent adhesion

TYPICAL APPLICATIONS

- Field Coils
- Control Coils
- Motor Frames
- Switch Bases
- Molded Bakelite
- Electrical Connectors
- Collector Rings
- Fuse Tubes
- Solenoid Coils
- Controller Shafts
- Printed Circuit Boards
- Commutator Ends
- Porcelain
- Soldered Joints
- Finger Blocks
- Oil reservoir interior
- Bussbars
- Stator Coil End Turns

TYPICAL PROPERTIES

Physical

Color /Appearance	Red
Density @ 77°F (25°C), Lbs/gal	7.9 – 9.0
Viscosity @ 77°F (25°C) Brookfield Viscometer cps	200 – 350
Flash point	81°F (27°C)
Cure Time @ 77°F (25°C) on Strip, Minutes	Set to Touch Tack Free 10 30
Film Build, mils/side, ASTM D-115	1.5 – 2.5
Thinner (Solvent)	T-200X

Electrical

Dielectric Strength, ASTM D 115,	Dry, (volts/mil)	2,000
	After 24 hours in water, (volts/mil)	1,200

Chemical Resistance

Water	Excellent
Acid (10% Sulfuric Acid)	Excellent
Alkali (1% Sodium Hydroxide)	Excellent
Salt Water	Excellent
Oil, ASTM D-115	Passed
Corrosive Effect on Copper	None

Thermal Classifications (UL-1446)

Twisted Pair,	MW - 28	130° F
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APPLICATION GUIDELINES

Stir the ER-41 to mix the pigment because there may have been some settling. Apply by brushing, dipping or spraying. ER-41 is used as supplied in many applications or may be thinned as required with T-200X. For spraying applications, it is usual to thin 20 - 25%.

The film thickness should be kept to no more than 2.0 mils per side per application. This allows for complete solvent release and proper cure. ER-41 will air dry so that it can be handled in 30 minutes. For optimum chemical and abrasion resistance, allow to air dry for at least 24 hours.

SPECIAL PRECAUTIONS

When ER-41 is applied by spray methods, care should be taken to keep the spray area clean. Filters and other waste from the area should be soaked in water and disposed of in safety containers.

STORAGE AND SHELF LIFE

Store in a cool (65-75°F, 18-24°C) dry place away from direct sunlight.

Shelf Life (Bulk) - 1 year @ 70° F(21° C).

Shelf Life (Spray) - 18 months @ 70°F (21°C).

SAFETY AND ENVIRONMENT

See Material Safety Data Sheet