



Technical Data Sheet

Resin

SYNTHITE® ER-41

- **Fast, air drying - Units can be handled in 30 minutes**
- **Ease of Application (dip, brush or spray) - Excellent adhesion**
- **High temperature rating – UL Rated Systems up to 180°C**
- **Good Oil and Moisture Resistance**
- **Excellent Chemical Resistance with Super Abrasion Protection**

Description

SYNTHITE® ER-41 is a high temperature; fast cure, air dry, red, polyurethane varnish, and is an excellent insulator coating for all electrical and electronic parts. ER-41 is also available in aerosol as DOLPH - SPRAY® ER-41. It provides excellent hiding power for rebuilding and manufacturing applications.

Application

SYNTHITE® ER-41 has vast application ability allowing for use on 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, Buss bars and Stator coil end turns.

Processing guidelines

SYNTHITE® ER-41 may be applied by brush, dip or spray. It is used as supplied in many applications or may be thinned as required with T-200X. For spraying applications, it is usual to thin 15 - 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.

Shelf Life and Storage

Shelf life is one year from date of shipment from our plant, when stored in closed containers at 70°F/21°C or below. Shelf life of spray cans is 18 months when stored in closed containers at 70°F/21°C or below. It is recommended to store in dry place at 70°F/21°C or below. Protect from direct sunlight and keep away from heat, sparks and open flame.

Health and safety

SPECIAL SAFETY 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.

Safety Data Sheets defining the known hazards and describing safety precautions appropriate for this product are available upon request from Von Roll USA, Inc., Schenectady, NY, (518) 344-7100 and/or www.vonroll.com. Similar information for solvents and other chemicals to be used with this product may be obtained from the appropriate supplier and used accordingly. We recommend following all hygiene and safety standards while processing material.



Physical Properties Resin	Test norm	Unit	Value
Appearance/Color			Red
Density @ 25°C (77°F)		lb/gal	7.9 – 9.0
Viscosity @ 25°C (77°F)	Brookfield Viscometer	cps	200 - 350
Flash Point		°C (°F)	27 (81)
Cure Time @ 25°C, (77°F) on Strip	Set to Touch, Tack Free	minutes	10 30
Film Build	ASTM D115	mils/side	1.5 – 2.5
Thinner (solvent)			T-200X
VOC – bulk	ASTM D6053	lb/gal	4.4
VOC – aerosol (calculated)		%	47
Chemical Resistance	Test norm	Unit	Value
Water			Excellent
Acid (10% Sulfuric Acid)			Excellent
Alkali (1% Sodium Hydroxide)			Excellent
Salt Water			Excellent
Oil	ASTM D115		Passed
Corrosive Effect on Copper			None
Electrical Properties	Test norm	Unit	Value
Dielectric Strength, Dry	ASTM D115	volts/mil	1,800
Dielectric Strength, Wet	ASTM D115	volts/mil	1,200
Thermal Class, UL-1446	Twisted Pair, MW-28	°C	130
Thermal Class, UL-1446	Twisted Pair, MW-35	°C	180

Liability

The information on this data sheet and the chart above is to be understood as a guideline and has general information. It is not binding for VR and it justifies in no case any liability. VR reserves the right to change the information at any time. The product properties set forth in this data sheet are based on the results of testing of typical material produced by the affiliated companies of Von Roll Holding Ltd. (underneath referred as Von Roll). Some variation in product properties is typical. Comments or suggestions relating to any subject other than product properties are offered only to call the end-user's or other person's attention to considerations which may be relevant in the independent determination of the use and/or manner of use of product. Von Roll does not claim or warrant that the use of its product will have the results described in this data sheet or that the information provided is complete, accurate or useful. The user should test the product to determine its properties and its suitability for the intended use. Von Roll expressly disclaims any liability for any damage, harm, injury, cost or expense to any person resulting directly or indirectly from that person's reliance on any information contained in this data sheet. Nothing contained in this data sheet constitutes representation or warranty as to any matter whatsoever. Von Roll makes no warranties whatsoever in this data sheet, expressed or implied, including any implied warranty or fitness for a particular use or purpose. Von Roll shall in no event be liable for incidental, exemplary, punitive or consequential damages.