

# TECHNICAL DATA SHEET

JOHN C. DOLPH COMPANY

320 New Road Monmouth Junction, NJ 08852 Ph:(732) 329-2333 Fax:(732) 329-1143 info@dolphs.com www.dolphs.com

# SYNTHITE<sup>®</sup> AC-41

# **CLEAR AIR DRYING VARNISH**

## **PRODUCT DESCRIPTION**

AC-41 is a high temperature; fast cure, air dry, polyurethane varnish, and is an excellent conformal coating for all electrical and electronic parts. It is especially recommended as a circuit board coating. SYNTHITE<sup>®</sup> AC-41 is also available in aerosol as **DOLPH - SPRAY<sup>®</sup> AC-41**.

FEATURES & BENEFITS	
<ul> <li>Fast drying - Units can be handled in 30 minutes</li> </ul>	Oil and moisture resistant
<ul> <li>Ease of Application (dip, brush or spray)</li> </ul>	Superior abrasion resistance
High temperature rating	Excellent adhesion
<ul> <li>Excellent chemical resistance</li> </ul>	UL recognized systems

TYPICAL APPLICATIONS		
Field Coils	Collector Rings	Porcelain
Control Coils	Fuse Tubes	Soldered Joints
Motor Frames	Solenoid Coils	Finger Blocks
Switch Bases	Controller Shafts	Oil reservoir interior
Molded Bakelite	Printed Circuit Boards	Buss bars
Electrical Connectors	Commutator Ends	<ul> <li>Touch up overcoat</li> </ul>

# TYPICAL PROPERTIES

## Physical

Color /Appearance	Light-Dark Amber
Density @ 77℉ (25°C), Lbs/gal	7.0 - 8.0
Viscosity @ 77°F (25°C) Brookfield Viscometer cps	125 – 275
Flash point	81°F (27°C)
Cure Time @ 77°F (25°C) on Strip, minSet to To Tack	
Film Build, mils/side, ASTM D-115	1-1.5
Thinner (Solvent)	T-200X
Federal Specification, TT-P-1436, Free of After-Tack	1 Hour
VOC-bulk, lb/gal VOC-aerosol (calculated)	4.3 47%

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#### Electrical

Dielectric Strength, ASTM D 115, \ volts/mil	Dry	2,000
	Wet	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 Class (UL-1446)

Twisted PairMW - 28130

### **APPLICATION GUIDELINES**

AC-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 20 - 25%.

The film thickness should be kept to no more than 1.5 mils per side per application. This allows for complete solvent release and proper cure. AC-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 SAFETY PRECAUTIONS

When AC-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

Shelf life (bulk) is one year from date of shipment from our plant, when stored in closed containers at 70F or below. Shelf Life (Spray) - 18 months @ 70F (21C) or cooler.

- 1. Store in cool, dry place at 70 F/21 °C or below.
- 2. Protect from direct sunlight and sources of heat
- 3. Keep away from heat, sparks and open flame.

#### SAFETY AND ENVIRONMENT

Avoid contact with skin and eyes. See Material Safety Data Sheet

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