



- TECHNICAL DATA SHEET -

**SYNTHITE AC-46**  
**CLEAR POLYURETHANE AIR DRYING**  
**MOISTURE AND FUNGUS RESISTANT VARNISH - CLASS F**

**DESCRIPTION**

SYNTHITE AC-46 conforms to Military Specification MIL-V-173C, and UL as Conformal coating. It is a high temperature electrical insulator that dries very quickly to a tough, clear, chemically resistant film. Synthite AC-46 is an excellent coating for printed circuits boards and for all kinds of electrical and electronic devices. It provides excellent abrasion resistance, and a very good chemicals and moisture protection.

Synthite AC 46 has the following outstanding properties :

- Homologation by UL as Conformal Coating (E317426).
- Fungicidal.
- Fast drying - Units can be handled in 30 minutes.
- Easy application- It can be Applied by dip, brush or spray.
- High temperature rating – Class F.
- Excellent chemical resistance .
- Oil and moisture resistant.
- Excellent printed circuit board coating.
- Superior abrasion resistance.
- Excellent adhesion.
- Good flexibility.
- Contains an UV tracer.

*Synthite AC 46 is also available in spray cans.*

**Recommended uses**

AC-46 dries to a tough, flexible film. Its moisture and fungus resistant properties suggest AC-46 as an excellent choice for electrical and electronic devices such as:

Field coils	Collector rings	Porcelain
Control coils	Fuse tubes	Soldered joints
Motor frames	Solenoid coils	Stators
Switch bases	Circuit boards	Transformers
Molded bakelite	Controller shafts	Bus bars
Electrical connectors	Commutator ends	Junction boxes & cables

**CHARACTERISTICS**

**Physical Properties**

Color	clear
Specific Gravity at 25°C	900±20
Viscosity in Ford Cup n.4 at 25°C	50-65 sec.
Build up D.F.T., ASTM D-115	0,060/0,075 mm.
Thinner	Dolph's T-200 or T-200X
Air drying time on a copper strip, ASTM D-115 - Set to touch	10 min.
Air drying time on a copper strip, ASTM D-115 - Tack free	1 hour
Corrosive effects on copper	none



### Electrical properties

Dielectric Strength, dry	2000 volts/0,025 mm
Dielectric Strength, after 24h. dipping into water	1200 volts/0,025 mm

### Chemical Resistance

Water	Excellent
Acid (10% Sulfuric Acid)	Excellent
Alkali (1% Sodium Hydroxide)	Excellent
Salt Water	Excellent
Oil, ASTM D-115	Passed

### Fungus resistance, MIL-V-173C-2

Aspergillus Niger	Passed
Aspergillus Flavus	Passed
Penicillium Funiculosum	Passed
Trichoderma Sp.	Passed

### APPLICATION

SYNTHITE AC-46 may be applied by brushing, dipping or spraying. It is used as supplied in many applications or may be thinned as required. For spraying applications it is usual to thin with 20-25% of Dolph's T-200. For conformal coating applications with automatic machines it can be diluted with Dolph's T-200X.

The film thickness should be kept to not more than 40 microns per application in order to allow a complete solvent release and a proper cure. Synthite AC-46 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 precaution

When SYNTHITE AC-46 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. Droplets of overspray may generate excessive heat by exotherm as they cure.

Warning: All the information and application instructions concerning this product are based on technical specifications that we consider reliable, and are provided by way of example, according to our application experience. They do not establish any guarantee but only represent a starting point subject to alterations, according to the application and the kind of material to be treated. Before the product's use the utilizer must determine the suitability for the intended use undertaking all risks and responsibility for whatever may happen in connection with the application. The producer and/or seller will not be considered responsible for any accident, loss or damage (immediate or consequent) originating from the use and/or the inability to use the concerned product. Albesiano Sisa Vernici srl reserves the right to change or modify at any time and without any notice the technical specifications of the product described in this data sheet.

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