

Data sheet: **Synthite AC-41**

Designation **Synthite AC-41**

DESCRIPTION

SYNTHITE AC-41 Varnish is a high-temperature-resistant insulating varnish that dries very quickly, creating a tough, transparent, chemical-resistant film. AC-41 is an excellent protective coating for all types of electrical and electronic equipment, and is particularly recommended for printed circuit boards. AC-41 is exceptionally resistant to abrasion and provides excellent protection against moisture and chemical agents. No corrosion effect on copper.

PROPERTIES

Synthite AC-41 is used to impregnate a wide variety of components requiring high properties, such as:

- Clear protective varnish
- UL-approved (files OBOR2.E317427 and OBJS2.E317429)
- Fast drying, parts can be handled after 30 minutes
- Easy application: can be dipped, brushed or sprayed
- Can be used at Class H temperatures 180°C
- Excellent adhesion.

CHARACTERISTICS

Physical properties	
Color	Transparent
Specific gravity @ 25oC	900 ±20 g/L
Viscosity, ISO Cup 4 @ 25oC	50 - 65 seconds
Viscosity, Ford Cup 4 @ 25°C	60 – 90 seconds
Drying time on copper plate: dry to the touch	10 min
Drying time on copper plate: dry	1 hour
Film thickness (double layer) ASTM D-155-55	60 - 75 µm

Electrical properties	
Electric strength, (dry / 0.025 mm film Thickness) ASTM D-115	80 KV/mm
Electric strength, 24 hours in water/ 0.025 mm film thickness (ASTM D-115)	48 KV/mm
Creep resistance CTI (IEC 60112)	600 M

Thermal class (UL 1446 FILE)	Test method
ANSI Wire Type	Twisted Pair
MW28C	130°C
MW 35-C	180°C

Chemical resistance

(ISO 2812 method 2, 168-hour exposure and on dried film thicknesses of 30 µm. Drying: 24h @ 25°C + 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

APPLICATION

Typical applications for HI-THERM BC-346-A are:

- Transformers
- Stators
- electronic cards
- Resistance

STORAGE

36 months at a temperature below 30°C, in its original packaging, away from any source of heat.

Hygiene and safety

Our products are intended for industrial use. Please refer to the Safety Data Sheet for further information.

APPLICATION GUIDELINES

SYNTHITE AC-41 can be applied by brush, dip or spray. In many applications, supply viscosity is used; if necessary, dilute with DOLPH'S T-200. For spray application, dilute with 20-25% T-200. Film thickness should not exceed 30-40 microns to allow full evaporation of solvent and good curing. AC-41 varnish air-dries and can be handled after 30 minutes. For maximum chemical and abrasion resistance, allow to air-dry for a few days.

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