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 New Information
 Mailed to: E, D, C/2169/DB

B-535 Water Soluble Insulating Varnish

Westinghouse B-535 Water Soluble Varnish is in compliance with the requirements of Rule 66, Los Angeles County, California, and other state air pollution regulations. The small amount of organic solvent present at manufacture is a non-photochemical reactive exempt type material.

Features

- This varnish is one of the few water soluble varnishes that will not attack bare copper and turn it green.
- B-535 is stable enough to ship at 60% non-volatile, allowing the user freight savings. It is readily reduced to the desired solids by stirring in tap water.
- The high viscosity, low solids relationship allows the user to reduce the varnish to the 35% non-volatile range to obtain a one mil build.
- Viscosity stability is very good in both storage at 60% non-volatile and at reduced non-volatile, as used in production.
- Data, to date, shows that pH stability is very good and requires minimum attention by the user.
- A temperature of -10° F. at the 60% non-volatile does not harm the varnish and it does not freeze. At 30% non-volatile, the varnish will freeze at -10° F., but upon warming to room temperature is not harmed.

Thermal Life

Westinghouse B-535 has a thermal life of 20,000 hours at 205°C as determined by IEEE #57 test using MW-35 wire.

Descriptive Information

Weight per Gallon 9.0 ± .1 Pounds
 Non-Volatile 60±1%
 Viscosity (Demmler #1 @ 25° C.) 450-700 Seconds
 Gel Time @ 135° C. 70-100 Minutes
 Dry Time (1 Mil @ 135° C.) . 15-20 Minutes
 Dielectric Strength - Dry .. 3700 Volts/Mil
 Dielectric Strength - Wet .. 3300 Volts/Mil
 Cake Hardness (Shore a Durometer) 40/35
 Recommended Curing Cycle¹ 2-4 Hrs. @ 125° C.

Recommended Thinner ... Tap Water
 pH 9.5 - 9.7
 Flash Point (TOC) 200° F.
 Reduction Tolerance in Water >300%

¹ Recommended Curing Cycle. The recommended cure time will vary depending on the size and mass of unit coated. The above recommended cure time is when part is at temperature.

Application Information:

To help with film thickness adjustment on parts:

% Non-Volatile	Viscosity @ 25°C. (Demmler #1)	Build/Dip
60%	450-650 Seconds	2.0 Mils
50%	350-420 Seconds	1.7 Mils
40%	300-350 Seconds	1.4 Mils
35%	130-155 Seconds	1.0 Mils
20%	14- 20 Seconds	0.5 Mils

The above viscosities are approximate. The reduction in non-volatile was made with tap water.

Bond Strength Data:

Bond Strength - Helical Coil Using #18 Wire with Amide-Imide over Polyester Enamel (ASTM - D 2519 Method)

	At Room Temperature	At 150°C.
2 Mils (4 Hrs. Cured @ 125° C)	20 Pounds	5 Pounds
2 Mils (4 Hrs. Cured @ 150° C)	20 Pounds	8 Pounds

Packaging Information:

Westinghouse B-535 Water Soluble Insulating Varnish is available in 1-gallon cans, 5-gallon pails, and 55-gallon drums.

The information contained herein is intended as a guide and should not be construed as a performance guarantee as the Company has no control over the manner in which others may employ the product.

