



TECHNICAL DATA SHEET

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DOLPHON[®] BC-352

CLEAR EPOXY VARNISH

DESCRIPTION

BC-352 is a one-part, epoxy varnish designed for use on equipment that will be exposed to harsh environments or hermetic applications.

FEATURES & BENEFITS

<ul style="list-style-type: none"> • High bond strength at elevated temperatures • Excellent insulation resistance under high humidity • Excellent chemical & moisture resistance • Excellent resistance to solvents • Abrasion resistant • Excellent base coat for epoxy encapsulation systems 	<ul style="list-style-type: none"> • UL recognized systems • Excellent for most corrosive applications • Excellent wetting properties • Superior tank stability • Less than 0.5% extractables with Freon R-134A • Excellent adhesion
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TYPICAL APPLICATIONS

<ul style="list-style-type: none"> • Hermetic units for refrigeration & air conditioning • Stators 	<ul style="list-style-type: none"> • Armatures • Rotating field coils 	<ul style="list-style-type: none"> • Laminations
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TYPICAL PROPERTIES

Physical

Color/Appearance	Clear/Amber
Weight per Gallon @ 77°F (25°C), ASTM D 1475, lbs/gal	8.0 – 9.0
Viscosity, Brookfield @ 77°F (25°C), ASTM D 2196, cps	125 - 255
Thinner (solvent)	T-352
Film Build, ASTM D 115, mils/side	1.5 – 2.0
Flash Point, ASTM D 3278, °F	81°F (27°C)

Mechanical

Helical Coil Bond Strength, ASTM D 2519, lbs	@ 25°C	55
	@ 150°C	18

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Electrical

Dielectric Strength, ASTM D 115, volts/mil	Dry Wet	4,600 3,600
Dielectric Constant @ 25°C, 100 Hz, ASTM D 150		3.3
Dissipation Factor @ 25°C, 100 Hz, ASTM D 150	96/23/50 96/23/96	0.003 0.041
Insulation Resistance, ASTM D 257, meg-ohms	96/23/50 96/23/96	∞ 500,000

Chemical Resistance

Water, ASTM D 5638	Excellent
Acid (10% Nitric Acid), ASTM D 5638	Excellent
Acid (10% Hydrochloric Acid), ASTM D 5638	Excellent
Alkali (Boiling 20% Sodium Hydroxide), ASTM D 5638	Excellent
Sodium Hyposulfite (10% solution)	Excellent
Salt Water, ASTM D 5638	Excellent
Oil, ASTM D 115	Passed

Thermal Class (UL-1446)

Twisted Pair	Magnet Wire	Temp
	MW16	220
	MW35	180

Refrigerant Extraction (NEMA RE-2)

R-22 R-134A	<1% <0.5%
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APPLICATION GUIDELINES

Following is a suggested dip and bake cycle.

- Preheat parts to 250-325°F to remove moisture.
Note: If thermoset tapes are used, preset tapes according to tape manufacturer's recommendations.
- Cool to 130°-140°F
- Dip until bubbling stops (15-30 minutes).
- Drain between 5-20 minutes
- Bake in a preheated oven at recommended time and temperature

Suggested Bake Cycles*

1-2 hours @ 325°F

2-4 hours @ 300°F

*Note: For hermetic and exceptionally high bonding applications, bake *6 hours @325°F*

* Times are taken after unit reaches baking temperature

STORAGE AND SHELF LIFE

Shelf life is one year from date of shipment from our plant, when stored in closed containers at 70°F/21°C or below.

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

SAFETY AND ENVIRONMENT

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

JCD/ds/BC352.2/27/07

AUTHORIZED DISTRIBUTOR