

TECHNICAL DATA SHEET

JOHN C. DOLPH COMPANY

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DOLFLEX® CC-1015

INSULATING COMPOUND

PRODUCT DESCRIPTION

DOLFLEX® CC-1015 insulating compound is a plastisol manufactured from selected vinyl resins and electrical grade plasticizers.

FEATURES & BENEFITS

- Quick cure at relatively low temperature.
- Non flammable -- Flash point 300°F
- Very flexible Excellent cushioning, shock resistant.
- Superior abrasion resistance.
- Excellent water, acid, alkali and chemical resistance.

DOLFLEX® CC -1015 is an excellent choice for dip coating and casting. Some typical applications are:

- Transformers
- Molded gaskets
- Stress relief layer for epoxies and polyesters.
- Coils
- Mold seam sealing
- Mold and casting forms and molded gaskets

TYPICAL PROPERTIES - Physical

Color/Appearance	Milky White
Specific Gravity @ 70°F, ASTM D-287	28º - 30º Heavy Scale
Viscosity, Brookfield Viscometer @ 80°F #1 Spindle @ 5 RPM	4,000-6,400 cps
Durometer Hardness, "A" Scale	50 <u>+</u> 5
Tensile Strength, p.s.i.	1500
Ultimate elongation, %	400
Cure time @ 275°F, 20 gram cup	30 – 40 min.
Brittle temperature, °F	Minus 40
Non-volatile content, %	100

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Chemical Resistance

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

Electrical Properties

Dielectric Strength on 20 – 30 mil films, volts/mil	350
Volume Resistivity @ 50°C, megohn-cm	3 x 10 ³
Power Factor	
@ 60 Hz	0.084
@ 01 Hz	0.123
@ 1000 Hz	0.1

APPLICATION GUIDELINES

PREPARATION OF MOLDS

This material may be used for the preparation of molds for casting epoxy resins by the following method:

- 1. Prepare unit in finished form or a dummy unit similar to the finished dimensions required.
- 2. Prepare a box to cast the compound so that half of the unit will be molded at a time. Make sure that the sides of this box are removable so that it can be taken apart for removing the compound after is has been cured.
- 3. Place the unit in the box and position correctly.
- 4. Preheat unit and box to 150°F.
- 5. Remove from oven and pour compound into the box to the proper level.
- 6. Replace in oven and bake for 45 minutes at 325°F.
- 7. Remove from oven, cool and remove unit from box. Strip off the compound and repeat steps 3 to 7 positioning the unit so that the other half of the mold will be cast.
- 8. Join the two halves together and construct a small opening for pouring the compound and a small opening for removal of air. Use for casting as given in steps 3 to 7 above, except that the temperatures recommended for the reaction of the epoxy compound would be used for curing.

COATING PROCEDURE

- 1. Preheat part to 285°F.
- 2. Remove from oven, immediately brush, dip or spray hot unit.
- 3. Replace part in oven at 285°F for 1 hour.

<u>NOTE</u>: The material after curing at this temperature is rubbery and tough. On cooling it is impossible to dig into it with a fingernail. If more build-up is required, a second coat may be applied after Step 3 by repeating steps 1, 2, and 3. In order to obtain the best results with this material, it is advised that the prospective user obtain technical advice on the particular application which is being considered.

GENERAL PROPERTIES

COMPATIBILITY WITH MAGNET WIRE COATINGS

DOLFLEX® CC-1015 is compatible with most magnet wire coatings **except** –Acrylic and Plain Enamel.

HEAT LIFE

The vinyl resins used in DOLFLEX® CC-1015 start to decompose at temperatures in excess of 285°F. For this reason, the compound is classified as a Class A material for hot spot operation not in excess of 105°C (221°F).

STORAGE AND SHELF LIFE

Shelf life (bulk) is 3 months from date of shipment from our plant, when stored in closed containers at 70°F or below.

- 1. Store in cool, dry place at 70 \(\mathbb{F}/21\)\(\mathbb{C}\) or below.
- 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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