

## GENERAL

- Conduit shall be fiberglass reinforced epoxy as manufactured by Champion Fiberglass, Inc. using the filament winding process.
- Conduit, elbows and fittings shall be manufactured from the same resin/hardener/glass systems manufactured by the same filament wound system.
- Conduit shall be integral bell and spigot.
- Conduit, elbows and fittings are specified for use throughout a temperature range of -60°F **(-51°C)** to 250°F **(121°C)**.
- Resin systems shall be epoxy with no fillers.
- Glass used shall be E-type.

## ELECTRICAL PROPERTIES

• Volume Resistivity	3.8 x 10 <sup>14</sup> ohm-cm	ASTM D 257
• Surface Resistivity	1.1 x 10 <sup>14</sup> ohms	ASTM D 257
• Dielectric Constant	3.5 (at 10 <sup>3</sup> cps)	ASTM D 150
• Dissipation Factor	0.005 (at 10 <sup>3</sup> cps)	ASTM D 150
• Dielectric Strength	500 volts/mil. <b>(19.7 kv/mm)</b>	ASTM D 149

## PHYSICAL AND MECHANICAL PROPERTIES

• Tensile Strength (Axial)	11,000 psi <b>(76 MPa)</b>	ASTM D 2105
• Compressive Strength (Axial)	12,000 psi <b>(83 MPa)</b>	ASTM D 695
• Ultimate Elongation	2% psi <b>(9.6 GPa)</b>	ASTM D 2105
• Modulus of Elasticity (4" conduit)	1.4 X 10 <sup>+6</sup> psi <b>(9.6 GPa)</b>	ASTM D 2105
• Thermal Conductivity	2.0 BTU/(ft <sup>2</sup> )(hr.)(°F/in) <b>(0.3 W/mk)</b>	ASTM D 5930-01
• Specific Gravity	1.9	ASTM D 792
• Glass Content	70% ± 5%	API SPEC 15 LR
• Water Absorption	Less than 1%	ASTM D 570
• Barcol Hardness	54 ± 2	ASTM D2583
• Flammability Above Ground Conduit	Conform to UL 1684 A	
• Coefficient of Thermal Expansion	1.2 x 10 <sup>-5</sup> in/in/°F <b>(2.2 10<sup>-5</sup> m/m/°C)</b>	ASTM D 696

