

2.3 Fittings

All fittings, adapters and elbows shall be constructed of the same filament wound materials as the conduit and shall have a socket depth and an inside tapered bell consistent with the conduit. All fittings with an integral inside tapered bell must contain a TriSeal™ gasket unless adhesive bonding is otherwise required especially in high vibration locations (see section 2.2).

Section 3: Requirements

3.1 Workmanship

Conduits and fittings shall be free from defects and commercially practicable in color, opacity, density and other physical properties. The exterior surface finish shall be smooth per acceptable industry filament winding practices.

3.2 Marking

Conduits and fittings shall be marked at least once with a suitable identifying mark printed on the outside of the product. Such marking shall contain:

(1) RTRC (2) for use -40°C to 110°C or other applicable temperature (3) trade size (4) manufacturer's name or trademark (5) AG (6) part number (7) degrees and radii (elbows only) (8) date of manufacture.

Section 4: Conduit system properties

4.1 Physical Properties

	<u>Test Results</u>	<u>Test protocol</u>
Glass Content	68% ± 3%	API 15LR
Specific Gravity	1.94 g/cm ³	ASTM D792
Barcol Hardness	54 ± 2	ASTM D2583
Water Absorption	< 1%	ASTM D570
U.V. Resistance	> 3500 Hrs (Xenon Arc)	CSA C22.2 No. 2515

4.2 Friction Properties

	<u>Test Results</u>	<u>Test protocol</u>
Cross Linked Polyethylene Cable	.0233 ± .02	CSA B196.1
PVC Jacketed Cable	.0385 ± .06	CSA B196.1
Concentric Neutral Cable	.0160 ± .03	CSA B196.1
Teck (Armored) Cable	.0161 ± .03	CSA B196.1

4.3 Electrical Properties

	<u>Test Results</u>	<u>Test protocol</u>
Dielectric Strength	500 volts/mil (19.68 kV/mm)	ASTM D149
Dielectric Breakdown Voltage	29.7 kV	ASTM D149
Dissipation Factor	0.5%	ASTM D150

4.4 Surface finish

Exterior (average)	<2000 microinches (50.8 micrometers)
Interior (average)	<125 microinches (3.2 micrometers)
Color	Black (standard)

4.5 Thermal Properties

	<u>Test Results</u>	<u>Test protocol</u>
Coefficient of Thermal Expansion	1.37 E ⁻⁵ in./in./°F (2.47 E ⁻⁵ m./m./°C)	ASTM D696
Thermal Conductivity	2 Btu.in/ft ² .h. °F (0.288W/ m.K)	ASTM D335
Thermal Resistivity	0.5°F. ft ² .h/Btu.in (3.47 mK/W)	ASTM D335
Flammability	Article 5.10	UL 2515
Heat Deflection Temperature (HDT)	312°F (156°C)	ASTM D648

Section 5: Specification

Conduits and fittings shall bear nationally accepted testing laboratory approval per Harmonized CSA C22.2 No. 2515 Certification file No. 028032S, UL Listing file No. E53373 or NEMA TC 14A/B Standard or FRE Composites' own specification.

Section 6: Manufacturers

Conduits and fittings shall be manufactured by FRE Composites. No substitute shall be accepted.