SPECIFICATION CONTROL DRAWING

CHEMINAX

025

(.64 mm)

 $.048 \pm .002$

 $(1.22 \pm .05 \text{ mm})$

.032

(.813 mm)

.114

(2.90 mm)

.130 (nominal)

(3.30 mm)

137 (maximum)

(3.48 mm)

77 OHM, AWG 24, 19 STRANDS OF AWG 36, DATA BUS CABLE, MIL-STD-1553, OPTIMIZED SHIELD

3-20-12 Date Н Revision

10612

THIS SPECIFICATION SHEET FORMS A PART OF THE LATEST ISSUE OF RAYCHEM SPECIFICATION 1200.

CONSTRUCTION DETAILS

DIMENSIONS ARE NOMINAL VALUES IN INCHES UNLESS OTHERWISE DESIGNATED. METRIC UNITS SHOWN IN PARENTHESIS ARE APPROXIMATE EQUIVALENTS IN MILLIMETERS AND ARE FOR INFORMATION ONLY.

CONDUCTORS

AWG 24, 19 strands of AWG 36, Silver-Coated High Strength Copper Alloy

DIELECTRICS

Radiation-Crosslinked, Modified ETFE Colors - Light Blue / White

FILLERS

Radiation-Crosslinked, Modified ETFE

SHIELD

AWG 38, Tin-Coated Copper Optimized

JACKET

Radiation-Crosslinked, Modified ETFE

ELECTRICAL CHARACTERISTICS

MUTUAL CAPACITANCE 30 pF/ft. (98 pF/m) (maximum)

ATTENUATION 1.4 dB/100 ft. (4.6 dB/100 m)

(maximum) at 1 MHz

77 ± 5 ohms, Method C at 1 MHz

SURFACE TRANSFER IMPEDANCE 100 milliohms/meter (maximum)

(Per SAE AS85485 at 30 MHz)

CHARACTERISTIC IMPEDANCE

ADDITIONAL REQUIREMENTS

COMPONENT WIRE PRIOR TO CABLING (Test Procedures per SAE AS22759)

CROSSLINK PROOF $300 \pm 3^{\circ}$ C for 7 hours, .500 inch

(12.7 mm) mandrel, .375 lb. (170 g),

2.5 kV dielectric test

INSULATION (DIELECTRIC)

ELONGATION 50% (minimum)

TENSILE STRENGTH 5000 lbf/in² (34 N/mm²) (minimum)

INSULATION FLAWS SPARK TEST 3.0 kV (rms)

IMPULSE TEST 8.0 kV (peak) INSULATION RESISTANCE 5000 megohms for 1000 ft.

(1525 megohms-km) (minimum)

LOW TEMPERATURE-COLD BEND $-65 \pm 2^{\circ}$ C for 4 hours, .750 inch (19.1 mm)

mandrel, 1.00 lb. (454 g), 2.5 kV dielectric test

SHRINKAGE $200 \pm 3^{\circ}$ C for 6 hours, .125 inch (3.2 mm)

(maximum) in 12 inches (300 mm)

FINISHED CABLE

(Test Procedures per NEMA WC 27500, unless otherwise specified)

BLOCKING 200°C for 6 hours

.75 inch (minimum), 1.25 inch (maximum) CABLE LAY LENGTH

CROSSLINKED VERIFICATION 300 ± 5°C for 6 hours, 1.25 inches

(31.8 mm) mandrel

FLAMMABILITY 3 seconds (maximum); 3 inches (76 mm)

(Method B of Spec 1200) (maximum); no flaming of facial tissue

JACKET

ELONGATION 50% (minimum)

5000 lbf/in² (34 N/mm²) (minimum) TENSILE STRENGTH

JACKET FLAWS

SPARK TEST 1.0 kV (rms) 6.0 kV (peak) IMPULSE TEST

.008 inch (.2 mm) (nominal) JACKET THICKNESS

LOW TEMPERATURE-COLD BEND $-65 \pm 2^{\circ}$ C for 4 hours, 3.00 inch (76 mm)

mandrel

SHIELD COVERAGE 90% (minimum)

VOLTAGE WITHSTAND 1000 volts (rms) (minimum)

(DIELECTRIC)

Outer jacket color will be white (designated by a "-9" appended to the part number, e.g. 10612-24-9) unless otherwise specified.

Designate outer jacket color with a dash number in accordance with MIL-STD-681. Other codes and suffixes may be added to the part number, as necessary, to capture any additional requirements imposed by the purchase order.

CABLE IDENTIFICATION: Outer jacket shall be marked in contrasting color at 12 inch (nominal) intervals between marks as follows: " 10612 RAYCHEM

WEIGHT 15.9 lbs/1000 ft. (23.7 kg/km) (maximum)

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice. Tyco Electronics Corporation also reserves the right to make changes in materials or processing, which do not affect compliance with any specification. without notification to Buyer.

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