### SPECIFICATION CONTROL DRAWING

5012W5812

**CHEMINAX** 

.0890

.239

.265

.323

349

450

±.010

50 OHM, AWG 12, 7 STRANDS OF AWG 20, WATERBLOCKED, OPTIMIZED SHIELD, TRIAXIAL CABLE

2-25-13 Date Revision R

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

## CONSTRUCTION DETAILS

CONDUCTOR AWG 12, 7 Strands of

Copper

**DIELECTRIC** 

Rayfoam L

**1ST SHIELD** AWG 34,

**1ST JACKET** 

Color - Black

2ND SHIELD

Optimized

**2ND JACKET** 

Zerohal

AWG 34,

Zerohal

Color - Natural

Silver-Coated Copper

Water Sealant filling

WATERBLOCK LAYER

Non-Woven Polyester

Silver-Coated Copper

Non-Woven Polyester

Water Sealant filling shield interstices WATERBLOCK LAYER

shield interstices

AWG 20, Silver-Coated

**ELECTRICAL CHARACTERISTICS** 

DIMENSIONS ARE NOMINAL VALUES IN INCHES UNLESS OTHERWISE DESIGNATED.

CHARACTERISTIC IMPEDANCE 50 ± 2 ohms, Method A CAPACITANCE 27.0 pF/ft. (nominal)

30.0 pF/ft. (maximum)

VELOCITY OF PROPAGATION

78% (nominal) ATTENUATION (maximum) 0.7 dB/100 ft. at 10 MHz

> 2.3 dB/100 ft. at 100 MHz 5.4 dB/100 ft. at 400 MHz 9.2 dB/100 ft. at 1000 MHz

SURFACE TRANSFER IMPEDANCE

700 milliohms/meter (maximum) at .1 MHz - 1 GHz

60.0 dB (minimum) for 1 meter

EMP RESPONSE (2ND SHIELD)

## ADDITIONAL REQUIREMENTS

# **ELECTRICAL**

CONDUCTOR RESISTANCE 1.9 ohms/1000 ft. (nominal) INSULATION RESISTANCE (DIELECTRIC) 10,000 megohms (minimum)

for 1000 ft.

JACKET FLAWS

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

VOLTAGE WITHSTAND (DIELECTRIC)

CONDUCTOR TO SHIÈLD 1500 volts (rms) (minimum) SHIELD TO SHIELD 500 volts (rms) (minimum)

#### **ENVIRONMENTAL**

**FLAMMABILITY** Method B **HEAT SHOCK** 225°C

LOW TEMPERATURE-COLD BEND -30°C/12.00 inch mandrel

## **PHYSICAL**

INSULATION (DIELECTRIC)

**ELONGATION** 50% (minimum) TENSILE STRENGTH 1000 lbf/in2 (minimum)

2ND JACKET

**ELONGATION** 150% (minimum) TENSILE STRENGTH 1200 lbf/in2 (minimum) 1ST SHIELD COVERAGE 90% (minimum)

2ND JACKET THICKNESS .043 inch (nominal) WRAP (EACH) .006 inch thick (nominal)

Outer jacket color will be black (designated by a "-0" appended to the part number, e.g. 5012W5812-0) 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.

WEIGHT

147. lbs/1000 ft. (nominal)

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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