### SPECIFICATION CONTROL DRAWING

100 OHM, AWG 24, 19 STRANDS OF AWG 36. **CHEMINAX** 

0024S1664 10-23-12 Date

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

TWINAXIAL CABLE, OUTER SPACE USE

## CONSTRUCTION DETAILS

## ELECTRICAL CHARACTERISTICS

DIMENSIONS ARE NOMINAL VALUES IN INCHES UNLESS OTHERWISE

CONDUCTORS AWG 24, 19 Strands of

**DIELECTRICS** 

Modified ETFE

(Dual Extruded)

Alloy

SHIELD

AWG 38.

**JACKET** 

Silver-Coated Copper

Radiation-Crosslinked.

Modified ETFE

AWG 36, Silver-Coated High-Strength Copper

Radiation-Crosslinked.

Colors - Light Blue/White

DESIGNATED

.0250

.075

.167

.185

CHARACTERISTIC IMPEDANCE

100 ± 10 ohms, Method C at 1 MHz

MUTUAL CAPACITANCE

16.0 pF/ft. (nominal)

Revision

## ADDITIONAL REQUIREMENTS

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

CONDUCTOR RESISTANCE

26.5 ohms/1000 ft. (nominal)

CROSSLINKING PROOF TEST

300 ± 3°C for 1 hour, .875 inch mandrel, .750 lb., 2.5 kV dielectric test

INSULATION (DIELECTRIC)

(Total Insulation)

ELONGATION 50% (minimum) TENSILE STRENGTH 5000 lbf/in2 (minimum)

**INSULATION FLAWS** SPARK TEST

3.0 kV (rms)

**IMPULSE TEST** INSULATION RESISTANCE

8.0 kV (peak) 5000 megohms for 1000 ft. (minimum) -65 ± 3°C for 4 hours, .500 inch mandrel,

LOW TEMPERATURE-COLD BEND

1.00 lb., 2.5 kV dielectric test

.125 inch (maximum) in 12 inches

**SHRINKAGE** 200 ± 3°C for 1 hour,

#### **FINISHED CABLE**

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

**BLOCKING** 200°C for 6 hours

CROSSLINKED VERIFICATION **FLAMMABILITY** 

300 ± 5°C for 6 hours, 6.00 inch mandrel

(Method B of Spec 1200)

**JACKET** 

3 seconds (maximum); 3 inches (maximum); no flaming of facial tissue

**ELONGATION** TENSILE STRENGTH 50% (minimum) 5000 lbf/in2 (minimum)

JACKET FLAWS

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

**JACKET THICKNESS** LOW TEMPERATURE-COLD BEND .009 inch (nominal)

SHIELD COVERAGE

-55 ± 5°C for 4 hours, 6.00 inch mandrel

**VOLTAGE WITHSTAND** 

90% (minimum)

(DIELECTRIC)

1500 volts (rms)

20.1 lbs/1000 ft. (nominal) WEIGHT

# **OUTER SPACE REQUIREMENTS**

RADIATION RESISTANCE

500 megarads/5.50 inch mandrel 1.0 kV dielectric test

**VACUUM STABILITY** 

TOTAL MASS LOSS (TML) **VOLATILE CONDENSABLE** 

MATERIAL (VCM) WEIGHT LOSS:

0.10% (maximum) 0.45% (maximum)

1.00% (maximum)

Outer jacket color will be white (designated by a "-9" appended to the part number, e.g. 0024S1664-9) 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.

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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