# SPECIFICATION CONTROL DRAWING

100 OHM, AWG 28, 7 STRANDS OF AWG 36, DATA BUS, OUTER SPACE USE

Date 12-31-08 G Revision

0028S2664

**CHEMINAX** 

.041

.089

.105

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

### CONSTRUCTION DETAILS

**ELECTRICAL CHARACTERISTICS** 

DIMENSIONS ARE NOMINAL VALUES IN INCHES UNLESS OTHERWISE DESIGNATED.

CONDUCTOR AWG 28, 7 Strands of AWG 36, Silver-Coated .015 High Strength Copper Alloy

> **DIELECTRIC** Radiation-Crosslinked. Modified ETFE (Dual Extruded) Color - Light Blue/White

SHIELD FLAT, .0015 Strand Thickness Silver-Coated Copper

Radiation-Crosslinked,

Modified ETFE

**JACKET** 

CHARACTERISTIC IMPEDANCE

100 ± 10 Ohms, Method D at 1 MHz

MUTUAL CAPACITANCE 16.9 pF/ft. (nominal)

20.0 pF/ft. (maximum)

**ATTENUATION** 1.5 dB/100 ft. (nominal) at 1 MHz

## ADDITIONAL REQUIREMENTS

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

CROSSLINK PROOF 300 ± 3°C for 1 hour, .500 inch mandrel, .375 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** 8.0 kV (peak)

**INSULATION RESISTANCE** 5000 megohms for 1000 ft. (minimum) LOW TEMPERATURE-COLD BEND -65 ± 2°C for 4 hours, .375 inch mandrel,

500 lb., 2.5 kV dielectric test 200 ± 3°C for 1 hour. **SHRINKAGE** 

.125 inch (maximum) in 12 inches

### **FINISHED CABLE**

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

**BLOCKING** 200°C for 6 hours

**CROSSLINKED VERIFICATION**  $300 \pm 5$ °C for 6 hours, 3.00 inch mandrel FLAMMABILITY 3 seconds (maximum): 3 inch (maximum):

(Method B of Spec 1200) no flaming of facial tissue JACKET FLAWS

SPARK TEST 1.0 kV (rms) **IMPULSE TEST** 6.0 kV (peak) JACKET THICKNESS .008 inch (nominal) **JACKET** 

**ELONGATION** 

50% (minimum) 5000 lbf/in<sup>2</sup> (minimum) TENSILE STRENGTH -55 ± 5°C for 4 hours, 3.00 inch mandrel LOW TEMPERATURE-COLD BEND

SHIELD COVERAGE 90% (minimum) **VOLTAGE WITHSTAND** 1500 volts (rms)

(DIELECTRIC)

WEIGHT 6.6 lbs/1000 ft. (nominal)

#### **OUTER SPACE REQUIREMENTS**

Outer jacket color will be white (designated by a "-9" appended to the part number, e.g. 0028S2664-9) 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.

RADIATION RESISTANCE VACUUM STABILITY

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

WEIGHT LOSS: (Test per Spec 55/)

500 megarads/3.25 inch mandrel

1.00% (maximum)

0.10% (maximum)

0.45% (maximum)

Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice. Tyco Electronics 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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