## SPECIFICATION CONTROL DRAWING

8522C8661 11-12-07 Date

**CHEMINAX** 

.0315

.071

.168

.178

.204

222

85 OHM, AWG 22, 19 STRANDS OF AWG 34. EMP HARDENED, DATA BUS CABLE

Н Revision

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

> **CONDUCTORS** AWG 22. 19 Strands of

**DIELECTRICS** 

Copper

1st SHIELD

AWG 34.

Optimized

WRAP

2nd SHIELD

AWG 34.

Optimized

JACKET

Bare Copper

Copper-Polyester-

Nickel-Coated Copper

Radiation-Crosslinked,

Modified ETFE

Copper Tape

AWG 34, Tin-Coated

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

CHARACTERISTIC IMPEDANCE

85 ± 5 ohms, Method C at 1 MHz

MUTUAL CAPACITANCE

20.0 pF/ft. (nominal) 22.5 pF/ft. (maximum)

**ATTENUATION** 

1.0 dB/100 ft. (maximum) at 1 MHz

SURFACE TRANSFER IMPEDANCE

30 milliohms/meter (maximum)

from 0.1 MHz to 100 MHz

# ADDITIONAL REQUIREMENTS

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

**CROSSLINK PROOF** 300 ± 3°C for 1 hour, .875 inch mandrel,

INSULATION (DIELECTRIC)

50% (minimum)

.625 lb., 2.5 kV dielectric test

**ELONGATION** TENSILE STRENGTH

5000 lbf/in<sup>2</sup> (minimum)

**INSULATION FLAWS** SPARK TEST

3.0 kV (rms) 8.0 kV (peak)

**IMPULSE TEST INSULATION RESISTANCE** 

5000 megohms for 1000 ft. (minimum) -65 ± 3°C for 4 hours, .750 inch mandrel,

LOW TEMPERATURE-COLD BEND

1.00 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** CABLE LAY LENGTH

CROSSLINKED VERIFICATION

**FLAMMABILITY** 

(Method B of Spec 1200)

JACKET **ELONGATION** 

TENSILE STRENGTH

JACKET FLAWS SPARK TEST

IMPULSE TEST JACKET THICKNESS

LOW TEMPERATURE-COLD BEND SHIELD COVERAGE (EACH) **VOLTAGE WITHSTAND** 

(DIELECTRIC) WRAP

200°C for 6 hours

.80 inch (minimum), 1.00 inch (maximum) 300 ± 5°C for 6 hours, 6.00 inch mandrel 3 seconds (maximum); 3 inch (maximum);

no flaming of facial tissue

50% (minimum) 5000 lbf/in2 (minimum)

1.0 kV (rms) 6.0 kV (peak) .009 (nominal)

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

90% (minimum) 1500 volts (rms)

.0024 inch thick (nominal), .500 inch width (nominal), 25% overlap (minimum)

WEIGHT 53.7 lbs/1000 ft. (nominal)

Outer jacket color will be white (designated by a "-9" appended to the part number, e.g. 8522C8661-9) 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 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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