

**CHEMINAX**

RADIO FREQUENCY MULTIPLEX, DATA BUS MIL-STD-1553,  
77 - OHM TWIN, AWG 24

Date: 2-11-83  
Revision: C

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. METRIC UNITS SHOWN IN PARENTHESES ARE APPROXIMATE EQUIVALENTS IN MILLIMETERS AND ARE FOR INFORMATION ONLY.

CHARACTERISTIC IMPEDANCE 77 ± 5 ohms, Method C at 1 MHz  
CAPACITANCE, MUTUAL 30 pF/ft (maximum)  
ATTENUATION 1.0 db/100 ft. (nominal) at 1 MHz  
1.4 db/100 ft. (maximum) at 1 MHz

**CONDUCTORS**  
AWG 24, 19 Strands of  
AWG 36, Silver-Coated  
High Strength Copper  
Alloy

**DIELECTRICS**  
Radiation-Crosslinked  
Modified ETFE  
Light Blue/White  
Permittivity -  
2.7 (nominal)

**ADDITIONAL REQUIREMENTS**

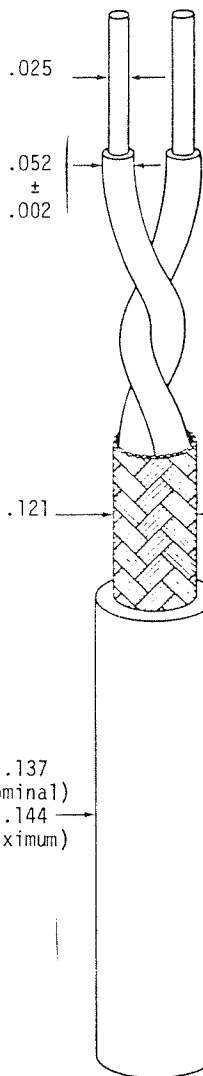
COMPONENT WIRE PRIOR TO CABLING (Per MIL-W-22759)

ACCELERATED AGING 300 ± 3°C for 7 hours, .500 in.  
(Per MIL-W-22759 Life mandrel, .375 lb  
Cycle Procedure) 2.5 kV dielectric test  
COLD BEND -65 ± 2°C for 4 hours, .750 in.  
mandrel, 1.00 lb  
2.5 kV dielectric test  
SHRINKAGE 200 ± 3°C for 6 hours, .125 in.  
(maximum) in 12 in.  
INSULATION RESISTANCE 5000 MΩ for 1000 ft. (minimum)  
TENSILE STRENGTH 5000 psi (minimum)  
ELONGATION 50% (minimum)  
IMPULSE DIELECTRIC TEST 8.0 kV (peak), 100% test

FINISHED CABLE (Per MIL-C-27500)

BLOCKING 200°C for 6 hours  
COLD BEND -65 ± 2°C for 4 hours, 3 in.  
mandrel  
THERMAL SHOCK 300 ± 5°C for 6 hours, 1.25 in.  
mandrel  
FLAMMABILITY 3 seconds (maximum); 3 in.  
(Per Raychem Spec 55A, (maximum); no flaming of facial  
Procedure 1) tissue  
WEIGHT 14.2 lbs/1000 ft. (maximum)  
SHIELD COVERAGE 90% (minimum)  
JACKET FLAWS 1000 volts, 60 Hz, 100% test  
VOLTAGE WITHSTAND (DIELECTRIC) 1000 volts (rms)(minimum)  
WALL THICKNESS .008 inch (nominal)  
TENSILE STRENGTH 5000 psi (minimum)  
ELONGATION 50% (minimum)

The length of lay shall be .75 inches (minimum) to 1.25 inches (maximum).



**SHIELD**  
AWG 38, Tin-Coated  
Copper

**JACKET**  
Radiation-Crosslinked  
Modified ETFE  
White

(†) Designate outer jacket color with a dash number in accordance with MIL-STD-681.