

**SPECIFICATION CONTROL DRAWING**

**2020F0421**

**CHEMINAX**

120 OHM, AWG 20, 19 STRANDS OF AWG 32,  
OPTIMIZED SHIELD, TWINAXIAL CABLE

Date: 3-6-14  
Revision: C

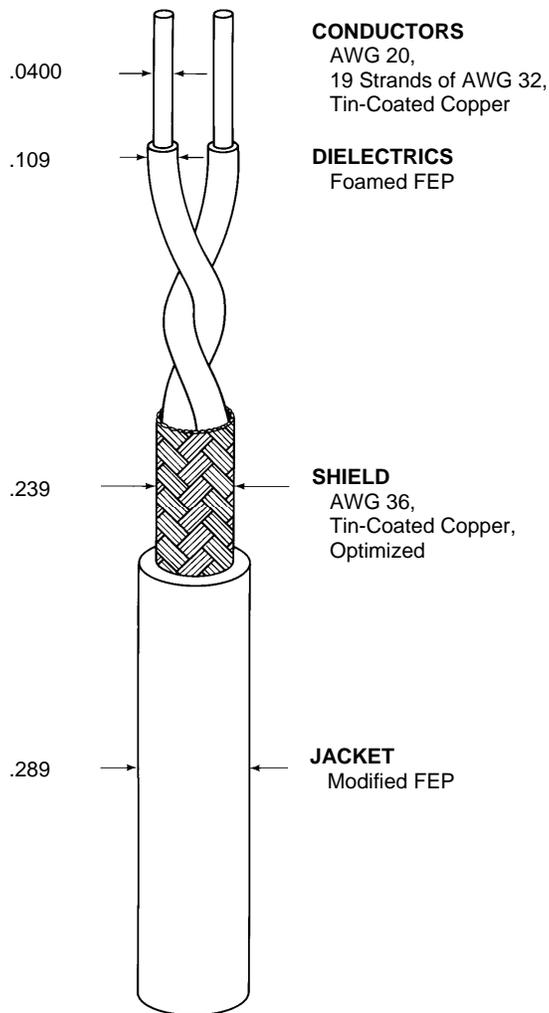
THIS SPECIFICATION SHEET FORMS A PART OF THE LATEST ISSUE OF RAYCHEM SPECIFICATION 1200.

**CONSTRUCTION DETAILS**

**ELECTRICAL CHARACTERISTICS**

DIMENSIONS ARE NOMINAL VALUES IN INCHES, UNLESS OTHERWISE DESIGNATED.

CHARACTERISTIC IMPEDANCE	120 ± 12 ohms, Method D at 1 MHz (with shield grounded)
MUTUAL CAPACITANCE	10.5 pF/ft. (nominal)
VELOCITY OF PROPAGATION	78% (nominal)
SURFACE TRANSFER IMPEDANCE (Per MIL-DTL-85485)	20 milliohms/meter (maximum) at 100 kHz to 20 MHz



**CONDUCTORS**  
AWG 20,  
19 Strands of AWG 32,  
Tin-Coated Copper

**DIELECTRICS**  
Foamed FEP

**SHIELD**  
AWG 36,  
Tin-Coated Copper,  
Optimized

**JACKET**  
Modified FEP

**ADDITIONAL REQUIREMENTS**

**ELECTRICAL**

CONDUCTOR RESISTANCE (prior to cabling)	9.53 ohms/1000 ft. (nominal)
INSULATION RESISTANCE	10,000 megohms (minimum) for 1000 ft.
JACKET FLAWS SPARK TEST IMPULSE TEST	1.0 kV (rms) 6.0 kV (peak)
VOLTAGE WITHSTAND (DIELECTRIC)	1500 volts (rms)

**ENVIRONMENTAL**

FLAMMABILITY	Method B
HEAT SHOCK	225°C
LOW TEMPERATURE-COLD BEND	-55°C/8.00 inch mandrel
VOLTAGE WITHSTAND (Post Environmental)	1000 volts (rms), 1 minute

**PHYSICAL**

INSULATION (DIELECTRIC) (prior to cabling) ELONGATION TENSILE STRENGTH	50% (minimum) 600 lbf/in <sup>2</sup> (minimum)
JACKET ELONGATION TENSILE STRENGTH	200% (minimum) 2000 lbf/in <sup>2</sup> (minimum)
JACKET THICKNESS	.025 inch (nominal)

Dielectric colors will be light blue and white, unless otherwise specified. Optional dielectric colors are available in light colors only and will be designated in the part number. Outer jacket color will be translucent white, unless otherwise specified.

Example:

Light blue and white dielectric colors, translucent white jacket: 2020F0421-9X

Light yellow and light green dielectric colors, translucent white jacket: 2020F0421-4L/5L-9X

WEIGHT	50.8 lbs/1000 ft. (nominal)
--------	-----------------------------

Designate dielectric colors, if applicable, and outer jacket color in accordance with MIL-STD-681 with a slash separating the dielectric colors and a dash separating the dielectric colors from the jacket color. Other codes and suffixes may be added to the part number, as necessary, to capture any additional requirements imposed by the purchase order.

**ENGINEERING REFERENCE**

TEMPERATURE RATING	150°C (maximum)
--------------------	-----------------

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.

