



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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SPECIFICATION CONTROL DRAWING

10614

CHEMINAX

77 OHM, AWG 24, 19 STRANDS OF AWG 36, EMP HARDENED,
DATA BUS CABLE, MIL-STD-1553

Date: 8-14-14
Revision: J

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 | 77 ± 5 ohms, Method C at 1 MHz |
| MUTUAL CAPACITANCE | 30.0 pF/ft. (98.4 pF/m) (maximum) |
| ATTENUATION | 1.4 dB/100 ft. (4.59 dB/100 m) (maximum) at 1 MHz |
| SURFACE TRANSFER IMPEDANCE (Per SAE AS85485) | 0.2 milliohms/meter (maximum) at 30 MHz |

ADDITIONAL REQUIREMENTS

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

| | |
|------------------------------------|---|
| CONDUCTOR RESISTANCE | 26.5 ohms/1000 ft. (86.9 ohms/km) (nominal) |
| CROSSLINKING PROOF TEST | 300 ± 3°C for 1 hour, .625 inch (15.9 mm) mandrel, .375 lb (170 g), 2.5 kV dielectric test |
| INSULATION (DIELECTRIC) ELONGATION | 50% (minimum) |
| TENSILE STRENGTH | 5000 lbf/in ² (34.5 N/mm ²) (minimum) |
| INSULATION FLAWS SPARK TEST | 3.0 kV (rms) |
| IMPULSE TEST | 8.0 kV (peak) |
| INSULATION RESISTANCE | 5000 megohms for 1000 ft. (1524 megohms-km) (minimum) |
| LOW TEMPERATURE-COLD BEND | -65 ± 3°C for 4 hours, .750 inch (19.1 mm) mandrel, 1.00 lb (454 g), 2.5 kV dielectric test |
| SHRINKAGE | 200 ± 3°C for 1 hour, .125 inch (3.18 mm) (maximum) in 12 inches (305 mm) |

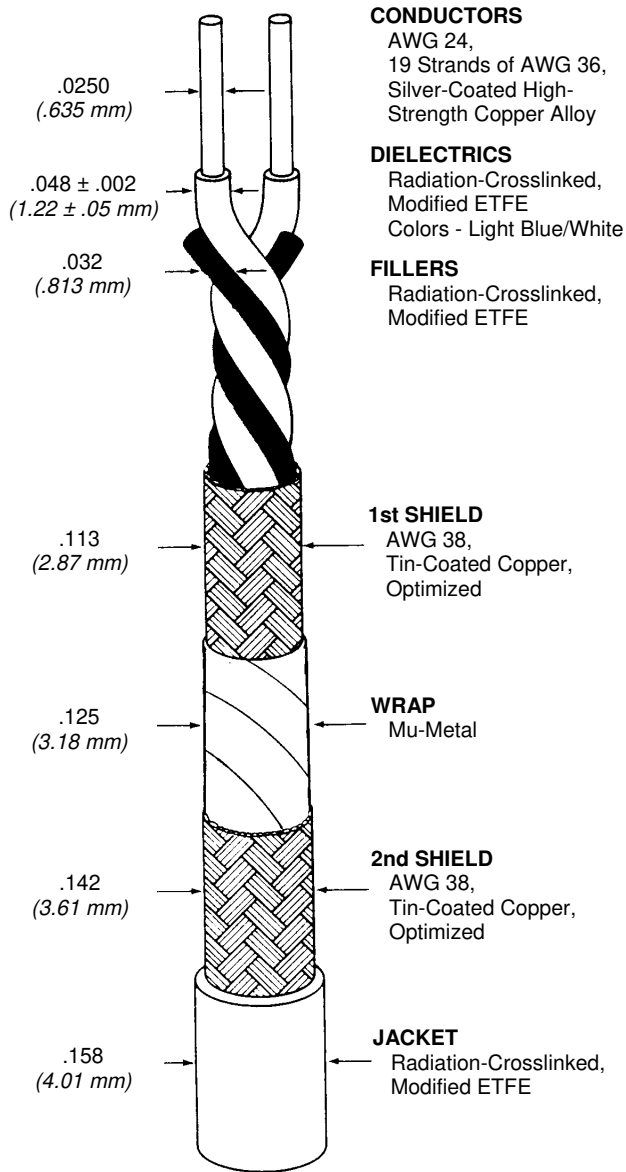
FINISHED CABLE

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

| | |
|--------------------------------------|---|
| BLOCKING | 200°C for 6 hours |
| CABLE LAY LENGTH | .75 inch (19.1 mm) (minimum), 1.25 inches (31.8 mm) (maximum) |
| CROSSLINKED VERIFICATION | 300 ± 5°C for 6 hours, 6.00 inch (152 mm) mandrel |
| FLAMMABILITY (Method B of Spec 1200) | 3 seconds (maximum); 3 inches (76.2 mm) (maximum); no flaming of facial tissue |
| JACKET ELONGATION | 50% (minimum) |
| TENSILE STRENGTH | 5000 lbf/in ² (34.5 N/mm ²) (minimum) |
| JACKET FLAWS SPARK TEST | 1.0 kV (rms) |
| IMPULSE TEST | 6.0 kV (peak) |
| JACKET THICKNESS | .008 inch (.203 mm) (nominal) |
| LOW TEMPERATURE-COLD BEND | -55 ± 5°C for 4 hours, 6.00 inch (152 mm) mandrel |
| VOLTAGE WITHSTAND (DIELECTRIC) | 1500 volts (rms) |
| WRAP | .002 inch (.051 mm) thick (nominal), 25% overlap (minimum) |
| WEIGHT | 29.1 lbs/1000 ft. (43.3 kg/km) (maximum) |
| CABLE IDENTIFICATION: | Outer jacket shall be marked in contrasting color at 12 inch (305 mm) (nominal) intervals between marks as follows: "10614 RAYCHEM" |

ENGINEERING REFERENCE

| | |
|--------------------|-----------------|
| TEMPERATURE RATING | 150°C (maximum) |
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- CONDUCTORS**
AWG 24,
19 Strands of AWG 36,
Silver-Coated High-
Strength Copper Alloy
- DIELECTRICS**
Radiation-Crosslinked,
Modified ETFE
Colors - Light Blue/White
- FILLERS**
Radiation-Crosslinked,
Modified ETFE

1st SHIELD
AWG 38,
Tin-Coated Copper,
Optimized

WRAP
Mu-Metal

2nd SHIELD
AWG 38,
Tin-Coated Copper,
Optimized

JACKET
Radiation-Crosslinked,
Modified ETFE

Designate outer jacket color with a dash number in accordance with MIL-STD-681. Unless otherwise specified, outer jacket color will be white (designated by a "-9" appended to the part number and conductor AWG size, e.g. 10614-24-9). 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.

