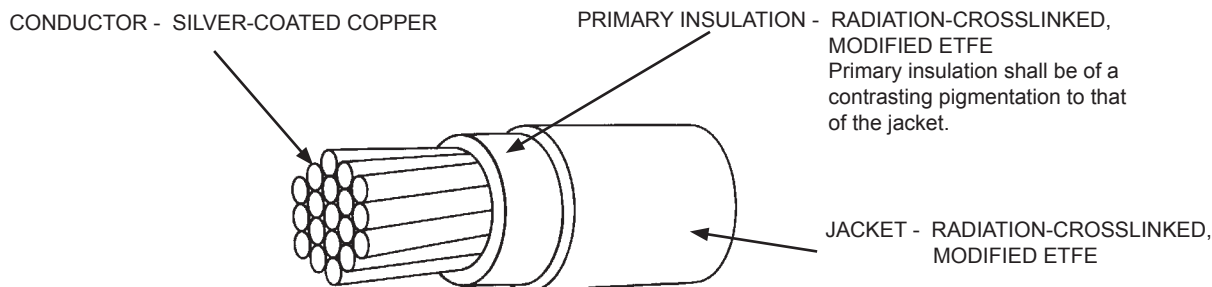


| SPECIFICATION CONTROL DRAWING                                                           |                                                                                                   | 55A0212  |          |
|-----------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|----------|----------|
| TITLE                                                                                   | WIRE, RADIATION-CROSSLINKED, MODIFIED ETFE-INSULATED,<br>MEDIUM WEIGHT, GENERAL PURPOSE, 600 VOLT | Date     | 10-21-11 |
|                                                                                         |                                                                                                   | Revision | C        |
| This specification sheet forms a part of the latest issue of Raychem Specification 55A. |                                                                                                   |          |          |



| TABLE I. CONSTRUCTION DETAILS |                    |                                       |                                         |         |                                               |                   |                                  |
|-------------------------------|--------------------|---------------------------------------|-----------------------------------------|---------|-----------------------------------------------|-------------------|----------------------------------|
| PART NUMBER<br><u>1/</u>      | WIRE SIZE<br>(AWG) | CONDUCTOR STRANDING<br>(number x AWG) | DIAMETER OF STRANDED CONDUCTOR<br>(in.) |         | FINISHED WIRE                                 |                   |                                  |
|                               |                    |                                       | MINIMUM                                 | MAXIMUM | MAXIMUM RESISTANCE AT 20°C<br>(ohms/1000 ft.) | DIAMETER<br>(in.) | MAXIMUM WEIGHT<br>(lbs/1000 ft.) |
| 55A0212-26-*                  | 26                 | 19 x 38                               | .018                                    | .019    | 38.4                                          | .034 ± .002       | 1.5                              |
| 55A0212-24-*                  | 24                 | 19 x 36                               | .023                                    | .025    | 24.3                                          | .039 ± .002       | 2.1                              |
| 55A0212-22-*                  | 22                 | 19 x 34                               | .029                                    | .031    | 15.1                                          | .045 ± .002       | 3.1                              |
| 55A0212-20-*                  | 20                 | 19 x 32                               | .037                                    | .039    | 9.19                                          | .053 ± .003       | 4.6                              |
| 55A0212-18-*                  | 18                 | 19 x 30                               | .046                                    | .048    | 5.79                                          | .063 ± .003       | 7.0                              |
| 55A0212-16-*                  | 16                 | 19 x 29                               | .052                                    | .054    | 4.52                                          | .071 ± .003       | 8.9                              |
| 55A0212-14-*                  | 14                 | 19 x 27                               | .065                                    | .068    | 2.88                                          | .088 ± .004       | 13.7                             |
| 55A0212-12-*                  | 12                 | 37 x 28                               | .084                                    | .087    | 1.90                                          | .106 ± .004       | 20.7                             |
| 55A0212-10-*                  | 10                 | 37 x 26                               | .106                                    | .112    | 1.19                                          | .131 ± .006       | 32.5                             |

| TABLE II. PERFORMANCE DETAILS |                                             |           |                                             |           |
|-------------------------------|---------------------------------------------|-----------|---------------------------------------------|-----------|
| PART NUMBER<br><u>1/</u>      | BEND TESTING                                |           |                                             |           |
|                               | MANDREL DIAMETER<br>(inch) (± 3%)           |           | WEIGHT<br>(lb) (± 3%)                       |           |
|                               | IMMERSION, LIFE CYCLE AND ACCELERATED AGING | COLD BEND | IMMERSION, LIFE CYCLE AND ACCELERATED AGING | COLD BEND |
| 55A0212-26-*                  | .375                                        | 1.00      | .125                                        | 1.50      |
| 55A0212-24-*                  | .375                                        | 1.00      | .250                                        | 2.00      |
| 55A0212-22-*                  | .500                                        | 1.00      | .375                                        | 2.00      |
| 55A0212-20-*                  | .500                                        | 1.00      | .500                                        | 2.00      |
| 55A0212-18-*                  | .500                                        | 1.50      | .500                                        | 2.00      |
| 55A0212-16-*                  | .750                                        | 1.50      | .750                                        | 3.00      |
| 55A0212-14-*                  | 1.00                                        | 2.00      | 1.00                                        | 4.00      |
| 55A0212-12-*                  | 1.50                                        | 2.00      | 1.50                                        | 4.00      |
| 55A0212-10-*                  | 2.00                                        | 3.00      | 1.50                                        | 4.00      |

|                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                    |  |                                                                                                                                                                                                                 |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Users should evaluate the suitability of this product for their application. Specifications are subject to change without notice.<br>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. |                                                                                                                                                                    |  |                                                                                                                                                                                                                 |
| 1/ COLORS AND COLOR CODE DESIGNATORS SHALL BE 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.                                                                                                 |                                                                                                                                                                    |  |                                                                                                                                                                                                                 |
| Page 1 of 2                                                                                                                                                                                                                                                                                                                 | Raychem, TE Connectivity, TE connectivity (logo) and TE (logo) are trademarks.                                                                                     |  | <br>Raychem Wire & Cable<br>501 Oaks Avenue<br>Redwood City, CA 94063-3800<br>Phone: 1-800-227-8816<br>Fax: 1-650-361-6297 |
|                                                                                                                                                                                                                                                                                                                             | DIMENSIONS ARE IN INCHES, AND UNLESS OTHERWISE DESIGNATED ARE NOMINAL.                                                                                             |  |                                                                                                                                                                                                                 |
|                                                                                                                                                                                                                                                                                                                             | THIS SPECIFICATION SHEET TAKES PRECEDENCE OVER DOCUMENTS REFERENCED HEREIN.<br>REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATION FOR BID. |  |                                                                                                                                                                                                                 |

**WIRE RATINGS AND ADDITIONAL REQUIREMENTS****TEMPERATURE RATING: 200°C**

Maximum continuous conductor temperature

**VOLTAGE RATING:** 600 volts (rms) at sea level**ACCELERATED AGING (CROSSLINKING PROOF):** 300 ± 3°C for 7 hours**BLOCKING:** 230 ± 3°C for 24 hours**COLOR:** White preferred**CONCENTRICITY:** 70% (minimum)**FLAMMABILITY:** Procedure 1, 3 seconds (maximum); 3 inches (maximum); no flaming of facial tissue**HUMIDITY RESISTANCE:** Insulation Resistance, 5000 megohms for 1000 ft. (minimum)**IDENTIFICATION AND COLOR STRIPING DURABILITY:** 125 cycles (250 strokes) (minimum), 500 g weight**IMMERSION:** Diameter increase 5% (maximum); no cracking, no dielectric breakdown**INSULATION ELONGATION AND TENSILE STRENGTH:**

Total Insulation (primary insulation and jacket)

Elongation, 50% (minimum)

Tensile Strength, 5000 lbf/in<sup>2</sup> (minimum)**INSULATION FLAWS:**

Primary Insulation,

Spark Test, 1.5 kV (rms)

Impulse Dielectric Test, 6.0 kV (peak)

Finished Wire,

Spark Test, 3.0 kV (rms)

Impulse Dielectric Test, 8.0 kV (peak)

**INSULATION RESISTANCE:** 5000 megohms for 1000 ft. (minimum)**INSULATION THICKNESS:** 0.006 in. (minimum) for total insulation**LIFE CYCLE:** 230 ± 3°C for 500 hours**LOW TEMPERATURE-COLD BEND:** -65 ± 3°C for 4 hours**SHRINKAGE:** 230 ± 3°C for 6 hours, 0.125 in. (maximum) in 12 inches**SMOKE TEST:** 250 ± 5°C, no visible smoke**SURFACE RESISTANCE:** 500 megohms-in. (minimum), both readings**THERMAL SHOCK RESISTANCE:** 200 ± 3°C,

0.060 in. (maximum) for AWG 26 - 12

0.100 in. (maximum) for AWG 10

**VOLTAGE WITHSTAND (Post Environmental):** 2500 volts (rms), 60 Hz**PART NUMBER:**

The "\*" in the part numbers on page 1 shall be replaced by a color code designator.

1/ Example: AWG 22, white; 55A0212-22-9

AWG 22, white with a black stripe; 55A0212-22-90

1/ See footer section on page 1