# SPECIFICATION CONTROL DRAWING

**44AM1821**

TITLE: CABLE, ELECTRIC, RADIATION-CROSSLINKED, POLYALKENE-INSULATED, TWO CONDUCTOR, SHIELDED, JACKETED, MEDIUM WEIGHT, AIRFRAME, 600 VOLT

Date: 08-10-02 | Revision: B

This specification sheet forms a part of the latest issue of Raychem Specification 44 and WC 27500 as applicable.

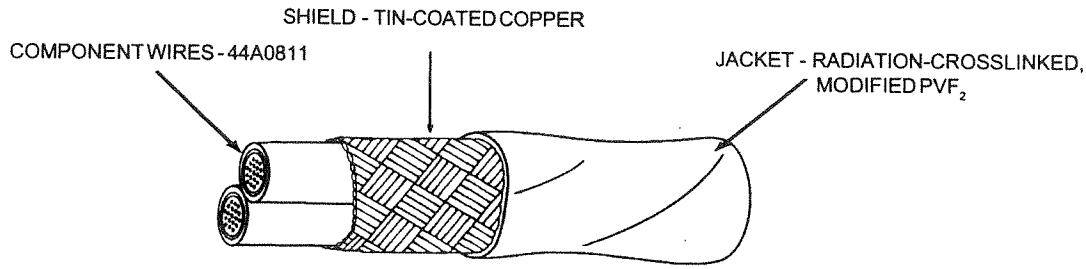



TABLE I. CABLE CONSTRUCTION DETAILS

| PART NUMBER | CONDUCTOR SIZE (AWG) | SHIELD SIZE (AWG) | JACKET THICKNESS (in.) | | OUTSIDE DIAMETER (in.) | | MAXIMUM WEIGHT (lbs/1000 ft.) |
|---|---|---|---|---|---|---|---|
| | | | MINIMUM | MAXIMUM | NOMINAL | MAXIMUM | |
| 44AM1821-24-* | 24 | 38 | .005 | .010 | .141 | .148 | 13.3 |
| 44AM1821-22-* | 22 | 38 | .005 | .010 | .157 | .165 | 16.8 |
| 44AM1821-20-* | 20 | 38 | .006 | .012 | .175 | .183 | 21.4 |
| 44AM1821-18-* | 18 | 38 | .006 | .012 | .195 | .203 | 27.7 |
| 44AM1821-16-* | 16 | 38 | .006 | .012 | .213 | .222 | 33.2 |
| 44AM1821-14-* | 14 | 38 | .007 | .014 | .251 | .262 | 46.4 |
| 44AM1821-12-* | 12 | 38 | .007 | .014 | .289 | .303 | 63.9 |
| 44AM1821-10-* | 10 | 36 | .007 | .014 | .351 | .369 | 98.5 |

TABLE II. CABLE PERFORMANCE DETAILS

| PART NUMBER | BEND TESTING | | | |
|---|---|---|---|---|
| | MANDREL DIAMETER (inch) (± 3%) | | WEIGHT (lb) (± 3%) | |
| | IMMERSION AND CROSSLINKED VERIFICATION | COLD BEND | IMMERSION AND CROSSLINKED VERIFICATION | COLD BEND |
| 44AM1821-24-* | 6.00 | 6.00 | .500 | 9 00 |
| 44AM1821-22-* | 6.00 | 6.00 | 1.50 | 9 00 |
| 44AM1821-20-* | 6.00 | 6.00 | 2.00 | 12 0 |
| 44AM1821-18-* | 6.00 | 6.00 | 2.00 | 12 0 |
| 44AM1821-16-* | 6.00 | 6.00 | 2.00 | 15 0 |
| 44AM1821-14-* | 10.0 | 10.0 | 2.00 | 15 0 |
| 44AM1821-12-* | 10.0 | 10.0 | 2.00 | 15 0 |
| 44AM1821-10-* | 10.0 | 10.0 | 2.00 | 15 0 |

NOTE: Nominal values are for information only.
Nominal values are not requirements.




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## CABLE RATINGS AND ADDITIONAL REQUIREMENTS

TEMPERATURE RATING: 150°C
Maximum continuous conductor temperature
VOLTAGE RATING: 600 volts (rms)
BLOCKING: 150 ± 3°C for 6 hours
CROSSLINKED VERIFICATION: 200 ± 5°C for 6 hours
DIELECTRIC WITHSTAND: 1500 volts (rms), 60 Hz, 15 seconds (minimum), 30 seconds (maximum)
FLAMMABILITY: 30 seconds (maximum); 3 in. (maximum); no flaming of facial tissue
IMMERSION: Diameter increase 5% (maximum); no cracking, no dielectric breakdown
JACKET COLOR: White preferred
JACKET CONCENTRICITY: 70% (minimum)
JACKET ELONGATION AND TENSILE STRENGTH:
Elongation, 200% (minimum)
Tensile Strength, 4000 lbf/in² (minimum)
JACKET FLAWS:
Spark Test, 1.5 kV (rms), 100% test
Impulse Dielectric Test, 6.0 kV (peak), 100% test
LOW TEMPERATURE-COLD BEND: -55 ± 5°C for 4 hours
SHIELD COVERAGE: 85% (minimum)
VOLTAGE WITHSTAND TEST (Post Environmental): 1000 volts (rms), 60 Hz, 1 minute

PART NUMBER:
The "*" in the part numbers on page 1 shall be replaced by color code designators with a slash separating the component wire colors and a dash separating the component wire colors from the jacket color.
Example: AWG 24, white and blue component wires; white jacket: 44AM1821-24-9/6-9