



**BRAIDLESS SILICONE RUBBER  
HIGH TEMPERATURE LEAD WIRE  
200°C 1000V  
Mil-W-16878/8**

200°C 1000 Volts  
19-2733543-75  
Tinned Copper Conductor

| Part Number          | AWG | Stranding | Silicone Rubber Mil-Wall | Nominal O.D. (In) | Approx. Weight (Lbs/Mft) | Color |
|----------------------|-----|-----------|--------------------------|-------------------|--------------------------|-------|
| MBA12T259-MR01-E4000 | 12  | 259/36 TC | 0.046"                   | 0.197"            | 32.38                    | Green |

All Dimensions are Nominal



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| APPLICATION |         | REVISIONS |   |          |             |
|-------------|---------|-----------|---|----------|-------------|
| NEXT ASSY   | USED ON | REV       | DESCRIPTION   | DATE     | APPROVED    |
|             | MSE     | H         | Revised per CN 429-4367, Code C<br>Chg: S. Brown Chk: M. Fortin | 02/04/24 | P. Peterson |
|             |         | J         | CN00000905, CODE C<br>CHG:R.JOHNSTON CHK:T.CARNEY               | 10/01/08 | R.JOHNSTON  |

SPECIFICATION CONTROL DRAWING

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|  |                                  |                    |   |                       |                       |          |
|--|----------------------------------|--------------------|---|-----------------------|-----------------------|----------|
| ALL SHEETS OF THIS DRAWING MAINTAINED AT SAME REVISION | CONTRACT NO.<br>DAAB07-86-C-K022 |                    | <b>GENERAL DYNAMICS</b><br>C4 Systems<br>Taunton, MA 02780-1069 |                       |                       |          |
|  | DWN<br>R. Hudson                 | DATE<br>11 Aug     | WIRE, ELECTRICAL, HOOK-UP,<br>EXTRA FLEXIBLE, 1000 VOLT         |                       |                       |          |
|  | CHK<br>J.P. C.B. G.I.            | DATE<br>8/12/86    |   |                       |                       |          |
|  | APVD<br>P. Wallace               | DATE<br>8/12/86    |   |                       |                       |          |
|  | APVD<br>R. Roth                  | DATE<br>86-8-13    | SIZE<br>A   | CAGE<br>67032         | DWG NO.<br>19-2733543 | REV<br>J |
|  | J. Burke                         | DATE<br>21 Aug. 86 | SCALE<br>NONE   | SOURCE<br>MS WORD 7.0 | SHEET<br>1 OF 6       |          |

## NOTES

1. Item: Wire, electrical, hook-up, extra flexible, 1000 volts
2. Description: The wire shall meet the requirements of MIL-W-16878/8 with the additions and exceptions specified herein.
3. Construction and Material
  - 3.1 Conductor: The conductor shall be rope stranded with strands of either tin or silver plated, soft annealed copper wire per QQ-W-343.
    - 3.1.1 Plating Thickness: 40 microinches minimum
    - 3.1.2 Number/Size of Strands: Table I
    - 3.1.3 Stranding Construction: Table I
    - 3.1.4 Strand Diameter: Table I
    - 3.1.5 Member Outside Diameter: Table I
    - 3.1.6 Length of Lay: Table I
    - 3.1.7 Overall Diameter: Table I
    - 3.1.8 Conductor Size: Table I
    - 3.1.9 Barrier Tape: The conductor (10 AWG - 0 AWG) may be optionally wrapped lengthwise with .005 inch thick silicone coated fiber-glass tape directly over the conductor as a barrier tape. Extruded silicone rubber over barrier tape to prevent silicone from being imbedded into conductor stranding.
  - 3.2 Insulation: Extruded silicone rubber
    - 3.2.1 Color: Table II
    - 3.2.2 Concentricity: At any cross section along the length of the completed wire, the minimum thickness of the insulation shall be not less than 41 percent of the difference between the measured diameter over the insulation and the measured diameter over the conductor, or not less than 70 percent of the maximum thickness at that cross section.
4. Maximum Operating Temperature:  $\pm 200^{\circ}\text{C}$

5. Marking: The shipping containers and/or reels shall be legibly marked with the following information:

- a) Manufacturer's Identification
- b) Procuring Activity Part Number (See 7.1)
- c) Procuring Activity CAGE Number (67032)
- d) Wire Size

This marking requirement replaces the marking requirements of MIL-DTL-16878.

6. Quality Assurance Provisions: Quality assurance provisions shall be in accordance with MIL-W-16878 as applicable to the requirements specified herein. Generic test data will be acceptable in lieu of actual test data for heat resistance, cold bend, soldering and surface resistance tests of MIL-W-16878/8.

6.1 Insulation Strippability shall be tested for conformance to the values given in Table A per FED-STD-228, method 2231 or equivalent:

TABLE A

| Wire Gage | Insulation Strippability Value (minimum) |
|-----------|--|
| 0-10      | 12 lbs.                                  |

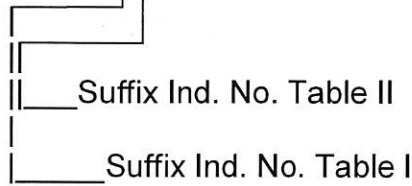
7. Suggested Source(s) of Supply

- a) BICC General  
Willimantic, CT 06226  
CAGE No.: 71124
- b) D&B Industrial Group/Rowe Industries  
24 Cedar Creek Avenue  
Georgetown, DE 19947  
CAGE No.: None
- c) Radix Wire Co.  
Euclid, OH 44132  
CAGE No.: 86696

7.1 Procuring Activity Part Number: The procuring activity part number consists of this drawing number (19-2733543) plus a two digit suffix. The first digit in the suffix is taken from Table I to indicate the conductor size. The second digit is taken from Table II to indicate the insulation color.

Example: The procuring activity part number for wire with a size 12 AWG conductor and green insulation is:

19-2733543-75



8. Identification of the Suggested Source(s) of Supply hereon is not to be construed as a guarantee of present or continued availability as a source of supply for the item.

|                  |                       |          |               |            |
|------------------|-----------------------|----------|---------------|------------|
| SIZE<br><b>A</b> | DWG NO.<br>19-2733543 | REV<br>J | CAGE<br>67032 | SHEET<br>4 |
|------------------|-----------------------|----------|---------------|------------|

TABLE I

| P/N<br>Suffix<br>Indicator | Wire<br>Size<br>AWG | Number<br>of<br>Strands | Construction | Strand<br>Diameter<br>Inch<br>+.0003<br>-.0001 | Member<br>OD<br>(Nom)<br>Inch | Length<br>of Lay<br>Max.<br>Inches | Overall<br>Diameter<br>Nominal<br>Inch<br>(Conductor) | Insulation<br>Diameter |                       |
|----------------------------|---------------------|-------------------------|--------------|--|-------------------------------|------------------------------------|---|------------------------|-----------------------|
|                            |                     |                         |              |  |                               |                                    |   | Wall<br>in.<br>**(min) | OD over<br>Insulation |
| -1                         | 0                   | 4655/36                 | 7x7x95/36    | .005   | .056                          | 8.25                               | .500  | .0595                  | .525/.650             |
| -2                         | 2                   | 2646/36                 | 7x7x54/36    | .005   | .044                          | 6.25                               | .379  | .0595                  | .465/.530             |
| -3                         | 4                   | 1666/36                 | 7x7x34/36    | .005   | .030                          | 4.30                               | .300  | .0565                  | .403/.434             |
| -4                         | 6                   | 1050/36                 | 19x55/36*    | .005   | .068                          | 3.26                               | .210  | .0595                  | .323/.354             |
| -5                         | 8                   | 665/36                  | 19x35/36*    | .005   | .055                          | 2.65                               | .167  | .057                   | .280/.306             |
| -6                         | 10                  | 413/36                  | 7x59/36      | .005   | .043                          | 2.08                               | .132  | .0445                  | .219/.231             |
| -7                         | 12                  | 259/36                  | 7x37/36      | .005   | .034                          | 1.63                               | .104  | .0445                  | .191/.201             |
| -8                         | 14                  | 168/36                  | 7x24/36      | .005   | .028                          | 1.38                               | .084  | .0445                  | .173/.185             |
| -9                         | 16                  | 105/36                  | 7x15/36      | .005   | .022                          | 1.07                               | .067  | .0295                  | .126/.134             |

WIRE SIZE      \*OPTIONAL STRAND CONSTRUCTION

6 AWG      7x150/36  
8 AWG      7x95/36

\*\*\* Optional Barrier Tape Will Reduce Wall By Approx. .0075"

TABLE II

| P/N Suffix Indicator | Insulation Color |
|----------------------|------------------|
| 0                    | Black            |
| 1                    | Brown            |
| 2                    | Red              |
| 3                    | Orange           |
| 4                    | Yellow           |
| 5                    | Green            |
| 6                    | Blue             |
| 7                    | Violet           |
| 8                    | Gray             |
| 9                    | White            |