

MIL-C-27072/53A
 24 September 1987
~~SUPERSEDING~~
 MIL-C-27072/53(USAF)
 19 April 1967

MILITARY SPECIFICATION SHEET

CABLE, SPECIAL PURPOSE, ELECTRICAL,
 MULTICONDUCTOR, (26 CONDUCTORS)
 M27072/53HDMC*

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the cable described herein shall consist of this specification and the latest issue of MIL-C-27072.

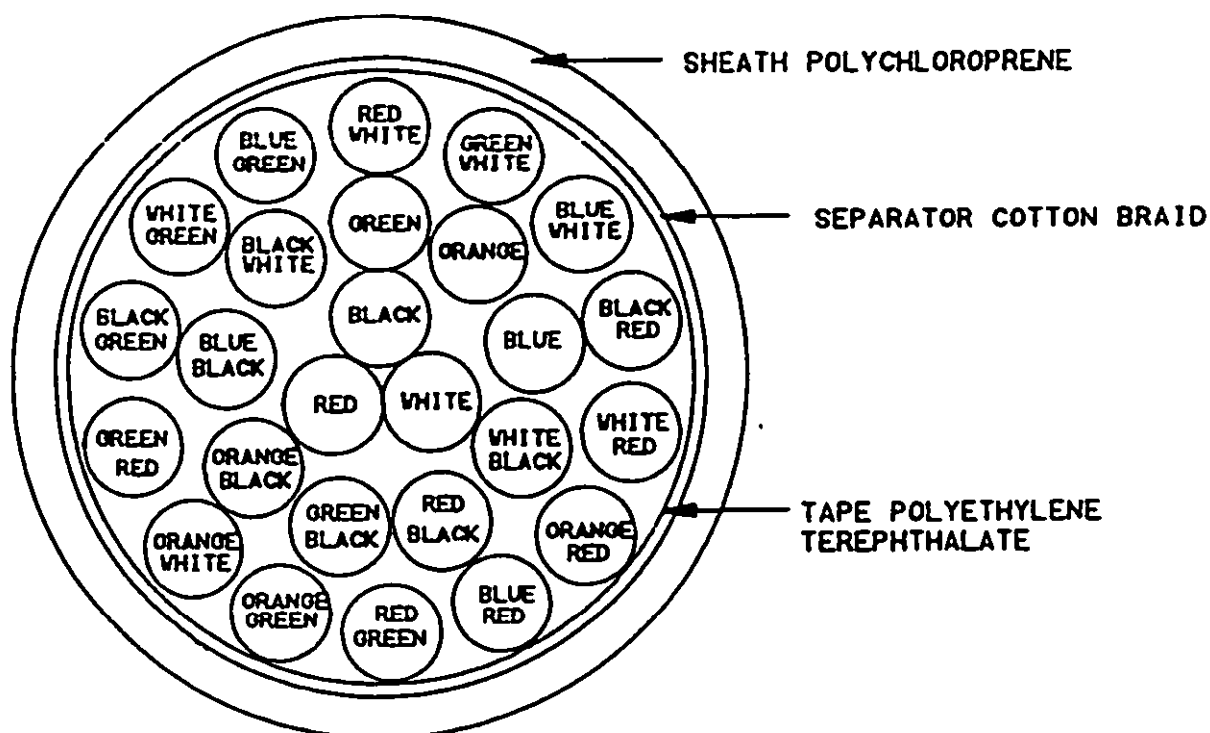


FIGURE 1. Cable configuration.

* The complete part number requires a color code designator (see table 1).

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DESIGN DATA:

Design and construction: See figure 1.

Number of conductors: Twenty-six.

Conductor size/stranding: See table I.

Wire: M16878/48FB* (see table I).

Jacket undershield: Not applicable.

Shielding: Not applicable.

Sheath: Polychloroprene.

Temperature rating: 60°C.

REQUIREMENTS:

Visual and dimensional:

Components:

Basic wire: Silver coated.

Dimension: See table I.

Primary insulation:

Material: Polytetrafluoroethylene.

Wall thickness: .009 inch \pm .002.

Colors:

White.

Black.

Red.

Green.

Orange.

Blue.

White with black tracer.

Red with black tracer.

Green with black tracer.

Orange with black tracer.

Blue with black tracer.

Black with white tracer.

Red with white tracer.

Green with white tracer.

Blue with white tracer.

Black with red tracer.

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White with red tracer.

Orange with red tracer.

Blue with red tracer.

Red with green tracer.

Orange with green tracer.

Orange with white tracer.

Green with red tracer.

Black with green tracer.

White with green tracer.

Blue with green tracer.

Spark test voltage: 3,400 V rms.

Inspection test voltage: 2,000 V rms.

Impulse dielectric test: 6,500 V peak.

Cabling:

Core:

Number of conductors: Three.

Pitch or lay: 2.0 inches maximum.

First layer:

Number of conductors: Nine.

Pitch or lay 3.0 inches maximum.

Second layer:

Number of conductors: Fourteen.

Pitch or lay: 4.5 inches maximum.

Tape over cable:

Material: Polyethylene terephthalate.

Separator:

Material: Cotton braid.

Workmanship: In accordance with MIL-C-27072.

Sheath:

Material: Polychloroprene.

Wall thickness: .093 inch nominal.

Tensile strength: In accordance with table V of MIL-C-27072.

Elongation: In accordance with table V of MIL-C-27072.

Tension set: In accordance with table V of MIL-C-27072.

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Tear strength: In accordance with table V of MIL-C-27072.

Accelerated aging: In accordance with table V of MIL-C-27072.

Oil resistance: In accordance with table V of MIL-C-27072.

Color: See table IV of MIL-C-27072.

Finished cable:

Weight: For future consideration.

Diameter: See table I.

Conductor resistance: In accordance with MIL-W-16878/4 or MIL-W-16878/21.

Dielectric strength: In accordance with MIL-W-16878/4 or MIL-W-16878/21.

Cold bend: Mandrel size in accordance with table XIII of MIL-C-27072.

Ozone: Mandrel size in accordance with table XIV of MIL-C-27072.

Marking durability: In accordance with MIL-C-27072.

Heat stability: Not applicable.

TABLE 1. Construction data.

| Part number M27072/53 | Conductor | | | Nominal diameter (in.) | Finished cable diameter (in.) ±10% | Basic wire M16878/4 M16878/21 |
|--------------------------|-----------------------|----------------------|----------------------|------------------------------|---|--|
| | Wire size (AWG) | Number of strands | Strand size (AWG) | | | |
| MDMC* | 22 | 7 | 30 | .050 | .530 | BFB*** |

Asterisks (*) shall be replaced by the appropriate color designator.

Revision letters are not used to denote changes due to the extensiveness of the changes.

Custodians:

Army - CR
Navy - SH
Air Force - 85

Review activities:

Air Force - 99
DLA - ES, IS

Preparing activity:
Air Force - 85

Agent:
DLA - ES

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