

MIL-C-27072/51A  
~~24 September 1987~~  
SUPERSEDING  
MIL-C-27072/51(USAF)  
6 February 1967

MILITARY SPECIFICATION SHEET  
CABLE, SPECIAL PURPOSE, ELECTRICAL, MULTICONDUCTOR,  
(2 CONDUCTORS) AND SINGLE SHIELDED  
M27072/51JACA\*

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.

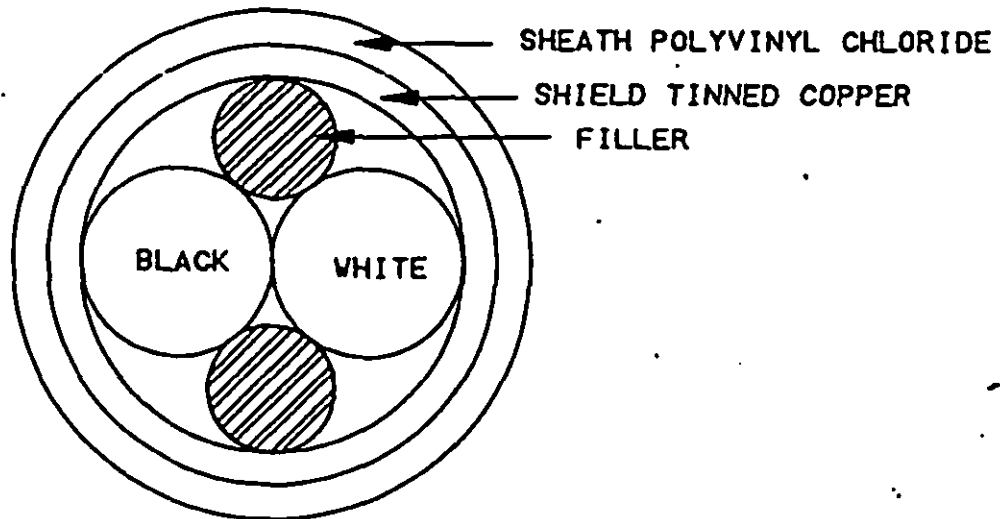


FIGURE 1. Cable configuration.

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

MIL-C-27072/51A

DESIGN DATA:

Design and construction: See figure 1.  
Number of conductors: Two.  
Conductor size/stranding: See table I.  
Wire: M16878/17BGE\* (see table I).  
Jacket undershield: Not applicable.  
Shielding: Tinned copper.  
Sheath: Polyvinyl chloride.  
Temperature rating: 105°C.

REQUIREMENTS:

Visual and dimensional:

Components:

Basic wire: Tinned copper.

Dimension: See table I.

Primary insulation:

Material: Polyvinyl chloride.

Wall thickness: .008 inch  $\pm$ .003.

Colors:

White.

Black.

Spark test voltage: 3,400 V rms.

Inspection test voltage: 2,000 V rms.

Impulse dielectric test: 8,000 V peak.

Jacket over insulation: Polyamide.

Color: Natural.

Filler: Required.

Material: In accordance with MIL-C-27072.

Layer: 1.0 inch maximum.

Tape material: Not applicable.

Shield:

Material: Tinned copper.

Gauge 36 AWG.

Braid angle: 20 to 40 degrees.

Workmanship: In accordance with MIL-C-27072.

## MIL-C-27072/51A

## Sheath:

Material: Polyvinyl chloride.

Wall thickness: .030 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: Not applicable.

Tear strength: Not applicable.

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

Dil resistance: Not applicable.

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-16878/17.

Dielectric strength: In accordance with MIL-W-16878/17.

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 I. Construction data.

Part number M27072/51	Conductor			Nominal diameter (in.)	Finished cable diameter (in.) ±10%	Basic wire M16878/17
	Wire size (AWG)	Number of strands	Strand size (AWG)			
JACA*	20	19	32	.064	.207	BGE***

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

(Project 6145-0909-22)