

MILITARY SPECIFICATION SHEET  
CABLE, SPECIAL PURPOSE, ELECTRICAL,  
MULTICONDUCTOR AND SINGLE SHIELDED  
M27072/57NACA\*

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.

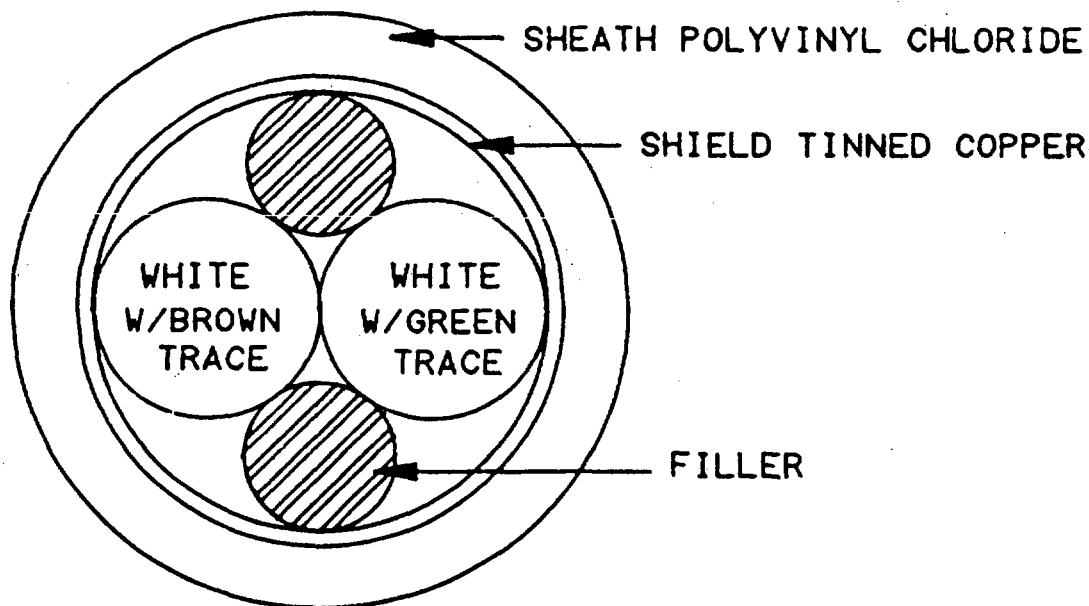


FIGURE 1. Cable configuration.

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

**DESIGN DATA:**

Design and construction: See figure 1.  
Number of conductors: Two.  
Conductor size and stranding: See table I.  
Wire: In accordance with M16878/17BEE\* (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: .009 inch  $\pm$ .003.

Colors:

White with brown tracer.

White with green tracer.

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.

Wall thickness: .003 inch  $\pm$ .001.

Color: Natural.

Filler: Applicable.

Material: In accordance with MIL-C-27072.

Lay: 1.00 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.

Sheath:

Material: Polyvinyl chloride.

Wall thickness: .025 inch nominal.

Tensile strength: See table V of MIL-C-27072.

Elongation: See table V of MIL-C-27072.

Tension set: Not applicable.

Tear strength: Not applicable.

Accelerated aging: See table V of MIL-C-27072.

Oil resistance: Not applicable.

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

Finished cable:

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 M27072/57	Conductor				Finished cable diameter (in.) *10%	Basic wire M16878/17
	Wire size (AWG)	Number of strands	Strand size (AWG)	Nominal diameter (in.)		
NACA*	24	19	36	.051	.180	BEE***

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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