

MIL-C-7078/7

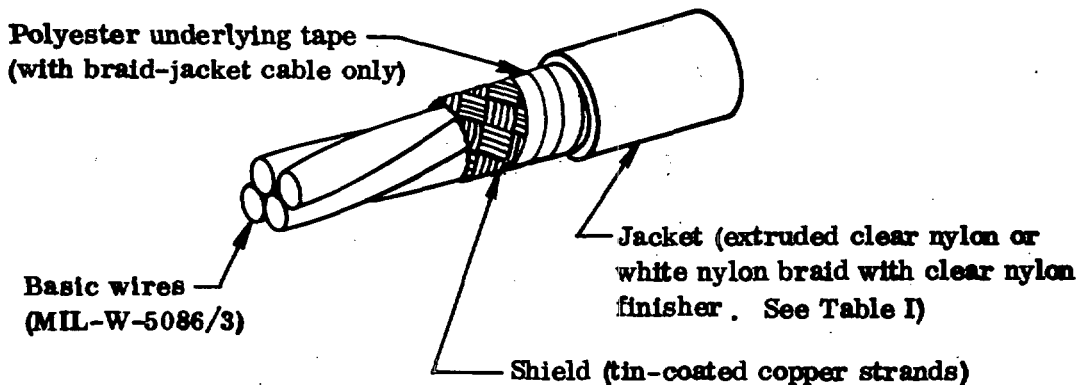
12 August 1970

SUPERSEDING**MILITARY SPECIFICATION SHEET** See "Supersession Data"**CABLE, ELECTRIC, AEROSPACE VEHICLE, MIL-W-5086/3 BASIC WIRES,
COPPER SHIELD, NYLON JACKET, 600-VOLT, 105° C**

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

The complete requirements for procuring the cable described herein shall consist of this document and the issues in effect of Specification MIL-C-7078 and Specification Sheet MIL-W-5086/3.

**INACTIVE FOR NEW DESIGN IN AIRCRAFT
APPLICATIONS AFTER DATE OF ISSUE**



SHIELDED JACKETED CABLE

REQUIREMENTS:

CONSTRUCTION DETAILS: See above Figure and Table I

VOLTAGE RATING: 600 Volts (rms)

TEMPERATURE RATING: 105° C (221° F) max conductor temperature

COLD BEND: Required for extruded-jacket cable only

WET DIELECTRIC TEST AFTER COLD BEND: Not required

THERMAL SHOCK TEST: Required for extruded-jacket cable only

HEAT RESISTANCE: Required for extruded-jacket cable only. Test temperature 130 ±2° C (266 ±3.6° F). Supplementary wet dielectric test not required

JACKET FLAWS (SPARK TEST): 1000 Volts (rms)

DRY DIELECTRIC: 1500 volts (rms)

FSC 6145

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PART NUMBER: Part numbers in this specification sheet are coded as in the following example:

M7078/7 - 22 - 1
 specification size number quantity of conductors
 sheet number of basic wire (basic wires) in cable

TABLE I

Cable part no.	Gage of shield strands (AWG)	Thickness of extruded jacket $\frac{1}{2}$ (in.)(min)	Major diameter of shielded jacketed cable (in.)(max)	Weight of shielded jacketed cable (lb/1000 ft)	
				(nom.) $\frac{2}{2}$	(max)
M7078/7-22-1	36 ↓	.005	.130	13.3	14.2
M7078/7-22-2		.006	.222	23.5	25.0
M7078/7-22-3		.006	.236	31.4	33.4
M7078/7-22-4		.007	.261	39.6	42.1
M7078/7-22-5		Braid	.284	47.2	49.2
M7078/7-22-6		↓	.311	55.1	57.4
M7078/7-22-7		↓	.311	.311	61.1
M7078/7-20-1	36 ↓	.005	.140	15.5	16.9
M7078/7-20-2		.006	.242	27.9	30.3
M7078/7-20-3		.007	.259	38.0	41.3
M7078/7-20-4		Braid	.282	47.7	50.7
M7078/7-20-5		↓	.311	57.4	61.1
M7078/7-20-6		↓	.341	67.3	71.6
M7078/7-20-7		↓	.341	.341	75.0
M7078/7-18-1	36 ↓	.005	.155	20.0	21.5
M7078/7-18-2		.007	.274	36.8	39.6
M7078/7-18-3		Braid	.289	50.1	53.3
M7078/7-18-4		↓	.319	63.5	67.5
M7078/7-18-5		↓	.352	76.8	81.7
M7078/7-18-6		↓	.386	90.5	96.3
M7078/7-18-7		↓	.386	.386	101.6
M7078/7-16-1	36 ↓	.005	.170	23.6	25.7
M7078/7-16-2		Braid	.301	44.4	47.2
M7078/7-16-3		↓	.321	61.1	65.0
M7078/7-16-4		↓	.355	77.6	82.6
M7078/7-16-5		↓	.392	94.4	100.4
M7078/7-16-6		↓	.431	111.4	118.5
M7078/7-16-7		↓	.431	.431	125.4

TABLE I (Continued)

Cable part no.	Gage of shield strands (AWG)	Thickness of extruded jacket 1/ (in.)(min)	Major diameter of shielded jacketed cable (in.)(max)	Weight of shielded jacketed cable (lb/1000 ft)	
				(nom.) 2/	(max)
M7078/7-14-1	36	.006	.192	31.0	33.7
M7078/7-14-2	↓	Braid	.341	58.5	62.2
M7078/7-14-3	↓	↓	.364	81.5	86.7
M7078/7-14-4	↓	↓	.403	104.4	111.1
M7078/7-14-5	↓	↓	.446	127.4	135.5
M7078/7-14-6	↓	↓	.491	151.1	160.7
M7078/7-14-7	↓	↓	.491	171.0	181.9
M7078/7-12-1	36	.006	.212	40.1	43.6
M7078/7-12-2	↓	Braid	.381	76.9	81.8
M7078/7-12-3	↓	↓	.407	108.6	115.5
M7078/7-12-4	↓	↓	.451	140.0	148.9
M7078/7-12-5	↓	↓	.500	171.5	182.4
M7078/7-12-6	↓	↓	.551	204.1	217.1
M7078/7-12-7	↓	↓	.551	232.2	247.0
M7078/7-10-1	36	.007	.244	57.2	62.2
M7078/7-10-2	↓	Braid	.441	110.8	117.9
M7078/7-10-3	↓	↓	.472	158.8	168.9
M7078/7-10-4	↓	↓	.524	206.0	219.2
M7078/7-10-5	↓	↓	.581	253.3	269.5
M7078/7-10-6	↓	↓	.641	302.7	322.0
M7078/7-10-7	↓	↓	.641	346.2	368.3
M7078/7-8-1	36	Braid	.296	86.9	91.5
M7078/7-8-2	↓	↓	.551	169.5	178.4
M7078/7-8-3	↓	↓	.590	245.1	258.0
M7078/7-8-4	↓	↓	.657	319.7	336.5
M7078/7-6-1	36	Braid	.351	132.0	138.9
M7078/7-6-2	↓	↓	.661	259.9	273.6
M7078/7-6-3	↓	↓	.709	379.6	399.6
M7078/7-6-4	34	↓	.794	508.5	535.3
M7078/7-4-1	36	Braid	.411	194.7	200.7
M7078/7-4-2	34	↓	.786	395.9	408.1
M7078/7-4-3	↓	↓	.843	579.3	597.2
M7078/7-4-4	↓	↓	.939	759.8	783.3
M7078/7-2-1	36	Braid	.486	281.1	286.8
M7078/7-2-2	34	↓	.936	571.7	583.4
M7078/7-1-1	36	Braid	.536	343.8	350.8
M7078/7-1-2	34	↓	1.036	699.6	713.9

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TABLE I (Continued)

Cable part no.	Gage of shield strands (AWG)	Thickness of extruded jacket <u>1/</u> (in.) (min)	Major diameter of shielded jacketed cable (in.) (max)	Weight of shielded jacketed cable (lb/1000 ft)	
				(nom.) <u>2/</u>	(max)
M7078/7-01-1	36	Braid	.591	436.3	445.2
M7078/7-01-2	34	Braid	1.146	888.3	906.4
M7078/7-02-1	36	Braid	.651	539.1	550.1
M7078/7-03-1	36	Braid	.721	662.2	675.7
M7078/7-04-1	36	Braid	.791	829.4	846.3

- 1/ When thickness of extruded jacket is specified in the above table, the cable shall be made with an extruded jacket. When braid is indicated, the cable shall be made with an underlying tape and a braid jacket.
- 2/ Nominal values for weight of shielded jacketed cable are given for information only. Nominal values are not requirements.

SUPERSESSON DATA: This specification sheet includes the requirements for the "C" dash number cables of MS25313. The individual cables of the specification sheet replace and supersede the "C" dash numbers of corresponding basic wire size and quantity of conductors in MS25313. Examples: Part number M7078/7-22-1 cable of this specification sheet replaces and supersedes dash number -C221 cable of MS25313; part number M7078/7-20-7 cable of the specification sheet replaces and supersedes dash number -C207 cable of MS25313.

Custodians:
Navy - AS
Army - EL

Preparing activity:
Navy - AS
(Project No. 6145-0508)

Review activities:
Navy - EC, OS
Army - EL, MI
DSA - IS

User activities:
Army - AV, MU

Review/user information is current as of the date of this document. For future coordination of changes to this document, draft circulation should be based on the information in the current Federal Supply Classification Listing of DOD Standardization Documents.

SPECIFICATION ANALYSIS SHEET

Form Approved
Budget Bureau No. 22-R255

INSTRUCTIONS: This sheet is to be filled out by personnel, either Government or contractor, involved in the use of the specification in procurement of products for ultimate use by the Department of Defense. This sheet is provided for obtaining information on the use of this specification which will insure that suitable products can be procured with a minimum amount of delay and at the least cost. Comments and the return of this form will be appreciated. Fold on lines on reverse side, staple in corner, and send to preparing activity. Comments and suggestions submitted on this form do not constitute or imply authorization to waive any portion of the referenced document(s) or serve to amend contractual requirements.

SPECIFICATION **CABLE, ELECTRIC, AEROSPACE VEHICLE, MIL-W-5086/3****MIL-C-7078/7 BASIC WIRES, COPPER SHIELD, NYLON JACKET, 600-VOLT.**ORGANIZATION **105° C**

CITY AND STATE

CONTRACT NUMBER

MATERIAL PROCURED UNDER A

 DIRECT GOVERNMENT CONTRACT SUBCONTRACT

1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?

A. GIVE PARAGRAPH NUMBER AND WORDING.

B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES

2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID

3. IS THE SPECIFICATION RESTRICTIVE?

 YES NO (If "yes", in what way?)

4. REMARKS (Attach any pertinent data which may be of use in improving this specification. If there are additional papers, attach to form and place both in an envelope addressed to preparing activity)

SUBMITTED BY (Printed or typed name and activity - Optional)

DATE

DD FORM 1426
1 JAN 66

REPLACES EDITION OF 1 OCT 64 WHICH MAY BE USED.