

MIL-C-7078/32(AS)

8 July 1974

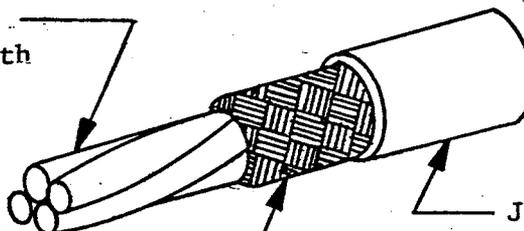
## MILITARY SPECIFICATION SHEET

CABLE, ELECTRIC, AEROSPACE VEHICLE, MIL-W-22759/23 BASIC WIRES,  
COPPER SHIELD, FEP JACKET, 600-VOLT, 200°C

This specification has been approved by the Naval Air  
Systems Command, Department of the Navy.

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-22759/23.

MIL-W-22759/23 Basic Wires  
(Nickel-Coated High Strength  
Copper Alloy Conductor,  
Extruded TFE Insulation)



Jacket (Extruded White  
FEP)

FEP - Fluorinated Ethylene Propylene  
TFE - Polytetrafluoroethylene

Shield (Nickel-Coated Copper  
Strands)

SHIELDED JACKETED CABLE

## REQUIREMENTS:

CONSTRUCTION DETAILS: See above Figure and Table I

VOLTAGE RATING: 600 Volts (rms), at sea level

TEMPERATURE RATING: 200°C (392°F) max conductor temperature

COLD BEND: Required

WET DIELECTRIC TEST AFTER COLD BEND: 1000 Volts (rms)

THERMAL SHOCK TEST: 230 +2°C (446 +3.6°F)

HEAT RESISTANCE: Required. Test temperature, 230 +2°C (446 +3.6°F)

Supplementary wet dielectric test not required

JACKET FLAWS (SPARK TEST): 1500 volts (rms)

DRY DIELECTRIC: 2000 volts (rms)

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

<u>M7078/32</u>	-	<u>22</u>	-	<u>1</u>
specification		size number		quantity of conductors
sheet number		of basic wires		(basic wires) in cable

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TABLE I

Cable part no.	Gage of shield strands (AWG)	Jacket thickness (inch) (min)	Major diameter of finished cable (inch)		Weight of finished cable (lb/1000 ft)	
			(nom) 1/	(max)	(nom) 1/	(max)
M7078/32-28-1	38	.007	.069	.075	5.4	5.9
M7078/32-28-2	36	.007	.106	.114	10.5	11.5
M7078/32-28-3	↑	.007	.111	.119	12.1	13.2
M7078/32-28-4	↑	.007	.120	.128	13.9	15.2
M7078/32-28-5	↓	.007	.129	.139	16.5	18.1
M7078/32-28-6	↓	.010	.145	.155	19.9	21.8
M7078/32-28-7	36	.010	.145	.155	21.2	23.1
M7078/32-26-1	38	.007	.074	.080	6.2	6.8
M7078/32-26-2	36	.007	.116	.124	12.0	13.1
M7078/32-26-3	↑	.007	.122	.130	14.8	16.1
M7078/32-26-4	↑	.007	.132	.140	17.5	19.0
M7078/32-26-5	↓	.010	.149	.158	21.4	23.5
M7078/32-26-6	↓	.010	.160	.170	24.9	27.0
M7078/32-26-7	36	.010	.160	.170	26.6	28.9
M7078/32-24-1	38	.007	.079	.085	7.3	7.9
M7078/32-24-2	36	.007	.126	.134	14.8	16.1
M7078/32-24-3	↑	.007	.132	.141	17.7	19.1
M7078/32-24-4	↑	.010	.150	.158	22.4	24.2
M7078/32-24-5	↓	.010	.162	.172	26.6	28.6
M7078/32-24-6	↓	.010	.175	.185	30.1	32.3
M7078/32-24-7	36	.010	.175	.185	32.6	35.0
M7078/32-22-1	38	.007	.085	.091	9.0	9.8
M7078/32-22-2	36	.007	.138	.146	17.9	19.2
M7078/32-22-3	↑	.010	.151	.160	23.7	25.3
M7078/32-22-4	↑	.010	.164	.173	28.7	30.6
M7078/32-22-5	↓	.010	.178	.188	33.5	35.8
M7078/32-22-6	↓	.010	.193	.203	38.9	41.3
M7078/32-22-7	36	.010	.193	.203	42.6	45.2

TABLE I (Continued)

Cable part no.	Gage of shield strands (AWG)	Jacket thickness (inch) (min)	Major diameter of finished cable (inch)		Weight of finished cable (lb/1000 ft)	
			(nom) <u>1/</u>	(max)	(nom) <u>1/</u>	(max)
M7078/32-20-1	38	.007	.094	.100	11.1	12.0
M7078/32-20-2	36	.010	.162	.170	24.4	26.0
M7078/32-20-3	↑	.010	.171	.179	30.7	32.6
M7078/32-20-4	↑	.010	.186	.195	37.3	39.6
M7078/32-20-5	↓	.010	.203	.212	44.3	46.9
M7078/32-20-6	↓	.010	.220	.230	52.0	54.8
M7078/32-20-7	36	.010	.220	.230	57.4	60.4

1/ Nominal values are given for information only. Nominal values are not requirements.

Preparing activity:

Navy - AS

(Project No. 6145-N247)

SPECIFICATION ANALYSIS SHEET		Form Approved Budget Bureau No. 22-R255
<p><b>INSTRUCTIONS:</b> 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.</p>		
<p><b>SPECIFICATION</b></p> <p style="text-align: center;">MIL-C-7078/32(AS)</p> <p>CABLE, ELECTRIC, AEROSPACE VEHICLE, MIL-C-22759/23 BASIC WIRES, COPPER SHIELD, FEP JACKET, 600-VOLT, 200°C</p>		
<b>ORGANIZATION</b>		
<b>CITY AND STATE</b>	<b>CONTRACT NUMBER</b>	
<p><b>MATERIAL PROCURED UNDER A</b></p> <p><input type="checkbox"/> DIRECT GOVERNMENT CONTRACT      <input type="checkbox"/> SUBCONTRACT</p>		
<p>1. HAS ANY PART OF THE SPECIFICATION CREATED PROBLEMS OR REQUIRED INTERPRETATION IN PROCUREMENT USE?</p> <p>A. GIVE PARAGRAPH NUMBER AND WORDING.</p>		
<b>RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES</b>		
2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID		
<p>3. IS THE SPECIFICATION RESTRICTIVE:</p> <p><input type="checkbox"/> YES      <input type="checkbox"/> NO (If "yes", in what way?)</p>		
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)		
<b>SUBMITTED BY</b> (Printed or typed name and activity - Optional)		<b>DATE</b>

DD FORM 1426  
1 JAN 66

REPLACES EDITION OF 1 OCT 64 WHICH MAY BE USED.