

MIL-C-7078/34(AS)

8 July 1974

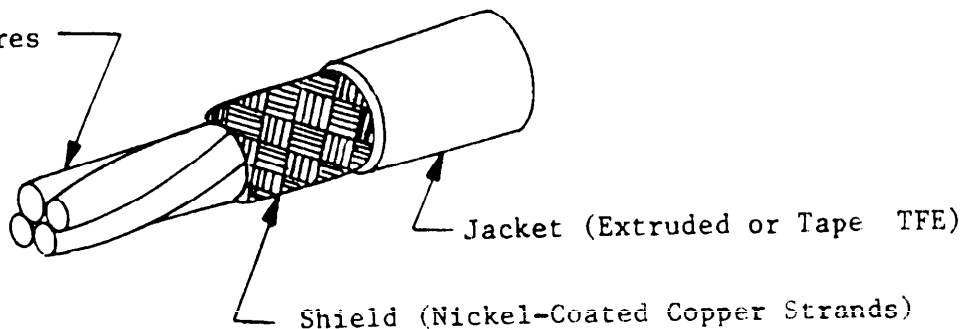
MILITARY SPECIFICATION SHEET

CABLE, ELECTRIC, AEROSPACE VEHICLE, MIL-W-22759/12 BASIC WIRES,
COPPER SHIELD, TFE JACKET, 600-VOLT, 260°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-22759/12.

MIL-W-22759/12 Basic Wires
(Nickel-Coated Copper
Conductor, Extruded
TFE Insulation)



TFE - Polytetrafluoroethylene

SHIELDED JACKETED CABLE

REQUIREMENTS:

CONSTRUCTION DETAILS: See above Figure and Table I

VOLTAGE RATING: 600 Volts (rms) at sea level

TEMPERATURE RATING: 260°C (500°F), max conductor temperature

COLD BEND: Required

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

THERMAL SHOCK TEST: 275 \pm 2°C (527 \pm 3.6°F)

HEAT RESISTANCE: Required. Test temperature, 275 \pm 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:

M7078/34
specification
sheet number

22
size number
of basic wires

1
quantity of conductors
(basic wires) in cable

MIL-C-7078/34(AS)

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) $\frac{1}{2}$	(max)	(nom) $\frac{1}{2}$	(max)
M7078/34-28-1	38	.010	.075	.081	6.0	6.6
M7078/34-28-2	36		.112	.120	11.4	12.6
M7078/34-28-3	↑		.117	.125	13.1	14.3
M7078/34-28-4	↕		.126	.134	15.0	16.4
M7078/34-28-5	↓		.135	.145	17.7	19.3
M7078/34-28-6	36		.145	.155	19.9	21.8
M7078/34-28-7	36		.145	.155	21.2	23.1
M7078/34-26-1	38		.080	.086	6.9	7.6
M7078/34-26-2	36		.122	.130	13.1	14.3
M7078/34-26-3	↑		.128	.136	15.9	17.3
M7078/34-26-4	↕		.138	.146	18.7	20.2
M7078/34-26-5	↓		.149	.158	21.4	23.5
M7078/34-26-6	36		.160	.170	24.9	27.0
M7078/34-26-7	36		.160	.170	26.6	28.9
M7078/34-24-1	38		.085	.091	8.0	8.7
M7078/34-24-2	36		.132	.140	16.0	17.3
M7078/34-24-3	↑		.138	.147	18.9	20.4
M7078/34-24-4	↕		.150	.158	22.4	24.2
M7078/34-24-5	↓		.162	.172	26.6	28.6
M7078/34-24-6	36		.175	.185	30.1	32.3
M7078/34-24-7	36		.175	.185	32.6	35.0
M7078/34-22-1	38		.091	.097	9.8	10.6
M7078/34-22-2	36		.144	.152	19.2	20.6
M7078/34-22-3	↑		.151	.160	23.7	25.3
M7078/34-22-4	↕		.164	.173	28.7	30.6
M7078/34-22-5	↓		.178	.188	33.5	35.8
M7078/34-22-6	36		.193	.203	38.9	41.3
M7078/34-22-7	36		.193	.203	42.6	45.2
M7078/34-20-1	38	.010	.100	.106	12.0	12.9
M7078/34-20-2	36		.162	.170	24.4	26.0
M7078/34-20-3	↑		.171	.179	30.7	32.6
M7078/34-20-4	↕		.186	.195	37.3	39.6
M7078/34-20-5	↓		.203	.212	44.3	46.9
M7078/34-20-6	36		.220	.230	52.0	54.8
M7078/34-20-7	36		.220	.230	57.4	60.4

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)
M7078/34-18-1	38	.010	.110	.116	15.7	16.7
M7078/34-18-2	36	↑	.182	.190	31.5	33.3
M7078/34-18-3	↑	↓	.192	.201	41.1	43.1
M7078/34-18-4	↑	.010	.210	.219	50.6	53.1
M7078/34-18-5	↓	.012	.234	.243	62.8	65.6
M7078/34-18-6	↓	.012	.254	.264	72.9	76.1
M7078/34-18-7	36	.012	.254	.264	81.0	84.5
M7078/34-16-1	38	.010	.117	.123	18.2	19.3
M7078/34-16-2	36	.010	.196	.204	36.7	38.6
M7078/34-16-3	↑	.010	.207	.216	48.0	50.3
M7078/34-16-4	↑	.012	.231	.240	60.8	64.6
M7078/34-16-5	↓	.012	.253	.262	74.0	77.4
M7078/34-16-6	↓	.012	.275	.285	36.8	90.8
M7078/34-16-7	36	.012	.275	.285	96.8	101.1

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

Preparing activity:
Navy - AS
(Project No. 6145-N249)

SPECIFICATION ANALYSIS SHEET		Form Approved Budget Bureau No. 22-R255
<p>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.</p>		
<p>SPECIFICATION MIL-C-7078/34 (AS)</p> <p>CABLE, ELECTRIC, AEROSPACE VEHICLE, MIL-W-22759/12 BASIC WIRES, COPPER SHIELD, TFE JACKET, 600-VOLT, 260°C</p>		
ORGANIZATION		
CITY AND STATE		CONTRACT NUMBER
<p>MATERIAL PROCURED UNDER A <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>		
<p>B. RECOMMENDATIONS FOR CORRECTING THE DEFICIENCIES</p>		
<p>2. COMMENTS ON ANY SPECIFICATION REQUIREMENT CONSIDERED TOO RIGID</p>		
<p>3. IS THE SPECIFICATION RESTRICTIVE?</p> <p><input type="checkbox"/> YES <input type="checkbox"/> NO (If "yes", in what way?)</p>		
<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)</p>		
<p>SUBMITTED BY (Printed or typed name and activity - Optional)</p>		<p>DATE</p>