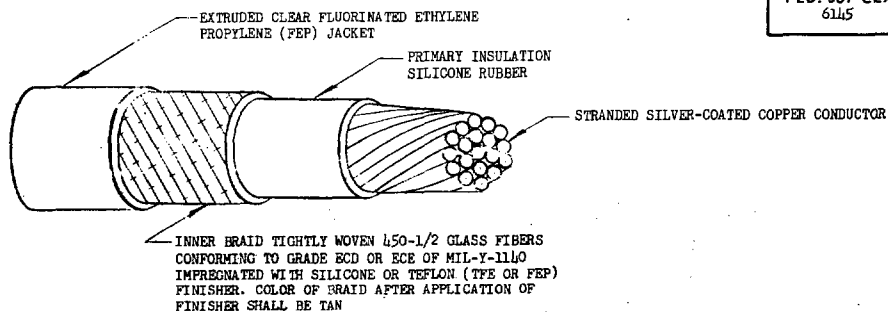


This military standard is approved by the Department of the Air Force and the Naval Air Systems Command and is mandatory for use by these activities. All other military activities are required to employ this standard where suitable.

Review activities:

USAF - 11
Navy - AS



PHYSICAL PROPERTIES OF PRIMARY INSULATION	
CHARACTERISTIC	REQUIREMENT
TENSILE STRENGTH MIN	BEFORE AGING 800 PSI
	AFTER AGING 600 PSI
ELONGATION MIN	BEFORE AND AFTER AGING, 1-1/2 INCHES (2 INCH SPECIMEN STRETCHED TO 3-1/2 INCHES)

PERFORMANCE DETAILS												
WIRE SIZE	ABRASION TEST			FLAWS TEST		INSULATION AND SURFACE RESISTANCE			LIFE CYCLE AND COLD BEND			
	RESISTANCE INCHES OF TAPE MIN	TENSION LOAD LBS	WEIGHT SUPPORT BRACKET	WEIGHT POUNDS	MIN AC VOLTAGE 60 CYCLE RMS	HUMIDITY RESISTANCE MEGOHMS PER 200 FT MIN	INSULATION RESISTANCE MEGOHMS PER 50 FT MIN	SURFACE RESISTANCE MEGOHM INCHES MIN	MANDREL DIA	TEST LOAD LIFE CYCLE COLD BEND LBS		
					PRIMARY INSULATION	FINISHED WIRE				LIFE CYCLE	COLD BEND	
22	22	1	A	1	2,000	5,000	3,000	1,000	100	4-1/2	3	.75
20										6-1/2	6	1.0
18												
16												
14	13	2	B	3	3,000	5,000	1,000	100	10	6	3.0	
12	17											
10	20											
8	25											
6	33	2	C	4.25	4,000	5,000	1,000	100	10	10	6.0	
4												

FINISHED WIRE CONSTRUCTION						
DASH NO.	WIRE SIZE	NUMBER OF STRANDS	RESISTANCE AT 20°C (68°F) OHMS/1,000 FT. MAX	FINISHED WIRE DIA NOM	FEP JACKET THICKNESS NOM	WEIGHT LBS/1,000 FT. MAX
-22	22	19	15.2	.036	.007	7.1
-20	20		9.42	.096		9.0
-18	18		6.03	.108		12.1
-16	16		4.76	.116	.008	14.3
-14	14		2.99	.141		21.5
-12	12		1.88	.160		30.5
-10	10	13	1.16	.194	.010	48.0
-8	8		.70	.243		75.0
-6	6		.436	.292		114.0
-4	4		.274	.357		173.0

- (C) REQUIREMENT: DURING AND FOLLOWING THE THERMAL SHOCK TEST, NONE OF THE INSULATION SHALL SHRINK BACK OR FLARE GREATER THAN .060 FOR WIRE SIZES 22-12 AND .125 FOR WIRE SIZES 10-4.

TWO 24-INCH SAMPLES SHALL BE TAKEN FROM EACH REEL OF FINISHED WIRE OR 25,000 FEET, WHICHEVER IS LESS. THE SAMPLES SHALL BE PLACED ON MANDRELS WITH WEIGHTS ATTACHED AS SPECIFIED FOR THE LIFE CYCLE TEST AND SUBJECTED TO 200° ± 5° C FOR 20 HOURS. FOLLOWING THE AIR OVEN TEST, THE SAMPLES SHALL BE COOLED FOR ONE HOUR AND SUBJECTED TO THE BEND TESTS OF 4.6.4.3.2 AND THE DIELECTRIC TEST OF 4.6.4.3.3. DURING THESE TESTS, THE OUTER JACKET SHALL NOT SHRINK MORE THAN 1/8 INCH FROM EACH END.

WHEN PRINTING (AS SPECIFIED IN THE IDENTIFICATION OF PRODUCT REQUIREMENT OF 3.4) IS MARKED ON AN INNER BRAID IT SHALL BE VISIBLE THROUGH THE OUTER FEP JACKET.

DIMENSIONS IN INCHES.

FOR DESIGN FEATURE PURPOSES, THIS STANDARD TAKES PRECEDENCE OVER PROCUREMENT DOCUMENTS REFERENCED HEREIN. REFERENCED DOCUMENTS SHALL BE OF THE ISSUE IN EFFECT ON DATE OF INVITATIONS FOR BID.

P.A. USAF - 11 Other Cust Navy - AS	TITLE WIRE, ELECTRICAL - SILICONE INSULATED, COPPER, 600 VOLT, 200°C, FEP JACKET	MILITARY STANDARD MS27110(ASG)
PROCUREMENT SPECIFICATION MIL-W-8777	SUPERSEDES:	SHEET 1 OF 1

DD FORM 1 SEP 57 672-1 (Limited coordination)
ASG use only

PREVIOUS EDITIONS OF THIS FORM ARE OBSOLETE.

APPROVED 11 Feb 61 REVISED 30 Jun 68 7 Mar 66 6 Jan 69