



AEROSPACE MATERIAL SPECIFICATION

AMS-DTL-23053™/18

REV. B

Issued 1999-07
Revised 2012-09
Cancelled 2018-12

Superseded by AS23053/18

Insulation Sleeving, Electrical, Heat Shrinkable,
Modified Fluoropolymer, Crosslinked

FSC 5970

RATIONALE

Requirements of AMS-DTL-23053/18 have been replaced in entirety by AS23053/18.

CANCELLATION NOTICE

This Technical Report has been declared "CANCELLED" as of December 2018 and has been superseded by AS23053/18. By this action, this document will remain listed in the respective index, if applicable. Cancelled Technical Reports are available from SAE.

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The requirements for acquiring the sleeving described herein shall consist of this specification sheet and the issue of the following specification listed in that issue of the Department of Defense Index of Specifications and Standards (DODISS) specified in the solicitation: MIL-DTL-23053.

REQUIREMENTS

Polymer type: The base polymer used in formulating this sleeving shall be a copolymer or terpolymer of polyvinylidene fluoride.

Continuous operating temperature range: Class 1: -67 °F (-55 °C) to +347 °F (+175 °C). Classes 2 and 3: -67 °F (-55 °C) to +302 °F (+150 °C).

Color: The sleeving shall be supplied in colors and clear. Colors shall conform to the requirements of Class 1 of MIL-STD-104. (See 1.2.1 and 3.4.2.1)

Class: The sleeving shall be furnished in the following classes, as specified (See 6.4a and 6.8):

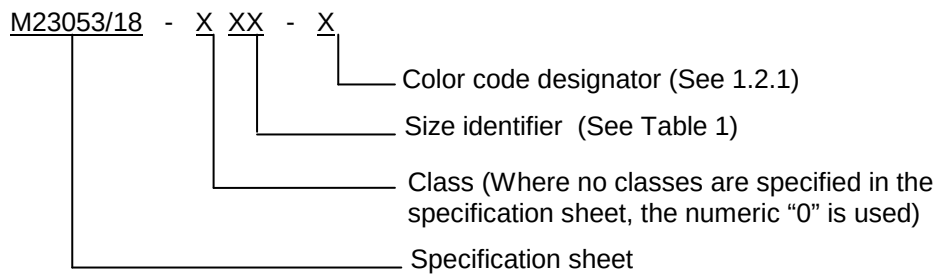
Class 1 - Semi-rigid. (Secant Modulus over 100 000 psi (690 Mpa).

Class 2 - Flexible. (Secant modulus over 25 000 to 120 000 psi (172 to 828 Mpa)

Class 3 - Very flexible. (Secant modulus to 25 000 psi (172 Mpa) Maximum.)

Longitudinal Change: +5, -10 percent; overexpanded sleeving: -15 percent.

Military part number: The Military part number shall consist of the basic number of this specification sheet and dash numbers as follows:



Example: Class 1, 0.250 inch (6.35 mm) as supplied ID sleeving shall be identified as M23053/18-106-C.

TABLE 1 - CONSTRUCTION DETAILS, INCHES (MM) 1/

Military part number <u>1/</u>	As supplied ID minimum	After unrestricted shrinkage	
		ID maximum	Wall Thickness <u>2/</u>
<u>Class 1</u>			
M23053/18-101-*	0.046 (1.17)	0.023 (0.58)	0.010 ± 0.002 (0.254 ± 0.051)
M23053/18-102-*	0.063 (1.60)	0.031 (0.79)	0.010 ± 0.002 (0.254 ± 0.051)
M23053/18-103-*	0.093 (2.36)	0.046 (1.17)	0.010 ± 0.002 (0.254 ± 0.051)
M23053/18-104-*	0.125 (3.18)	0.062 (1.58)	0.010 ± 0.002 (0.254 ± 0.051)
M23053/18-105-*	0.187 (4.75)	0.093 (2.36)	0.010 ± 0.002 (0.254 ± 0.051)
M23053/18-106-*	0.250 (6.35)	0.125 (3.18)	0.012 ± 0.003 (0.305 ± 0.076)
M23053/18-107-*	0.375 (9.53)	0.187 (4.75)	0.012 ± 0.003 (0.305 ± 0.076)
M23053/18-108-*	0.500 (12.70)	0.250 (6.35)	0.012 ± 0.003 (0.305 ± 0.076)
M23053/18-109-*	0.750 (19.05)	0.375 (9.53)	0.017 ± 0.003 (0.432 ± 0.076)
M23053/18-110-*	1.000 (25.40)	0.500 (12.70)	0.019 ± 0.003 (0.483 ± 0.076)
M23053/18-111-*	1.500 (38.10)	0.750 (19.05)	0.020 ± 0.003 (0.508 ± 0.076)
M23053/18-112-*	2.000 (50.80)	1.000 (25.40)	0.020 ± 0.003 (0.508 ± 0.076)
<u>Class 2</u>			
M23053/18-201-*	0.046 (1.17)	0.023 (.58)	0.010 ± 0.002 (0.254 ± 0.051)
M23053/18-202-*	0.063 (1.60)	0.031 (.79)	0.010 ± 0.002 (0.254 ± 0.051)
M23053/18-203-*	0.093 (2.36)	0.046 (1.17)	0.010 ± 0.002 (0.254 ± 0.051)
M23053/18-204-*	0.125 (3.18)	0.062 (1.58)	0.010 ± 0.002 (0.254 ± 0.051)
M23053/18-205-*	0.187 (4.75)	0.093 (2.36)	0.010 ± 0.002 (0.254 ± 0.051)
M23053/18-206-*	0.250 (6.35)	0.125 (3.18)	0.012 ± 0.003 (0.305 ± 0.076)
M23053/18-207-*	0.375 (9.53)	0.187 (4.75)	0.012 ± 0.003 (0.305 ± 0.076)
M23053/18-208-*	0.500 (12.70)	0.250 (6.35)	0.012 ± 0.003 (0.305 ± 0.076)
M23053/18-209-*	0.750 (19.05)	0.375 (9.53)	0.017 ± 0.003 (0.432 ± 0.076)
M23053/18-210-*	1.000 (25.40)	0.500 (12.70)	0.019 ± 0.003 (0.483 ± 0.076)
<u>OVEREXPANDED SLEEVING</u>			
M23053/18-211-*	0.093 (2.36)	0.031 (0.79)	0.017 ± 0.003 (0.432 ± 0.076)
M23053/18-212-*	0.187 (4.75)	0.062 (1.58)	0.020 ± 0.003 (0.508 ± 0.076)
M23053/18-213-*	0.375 (9.53)	0.125 (3.18)	0.020 ± 0.003 (0.508 ± 0.076)
M23053/18-214-*	0.750 (19.05)	0.250 (6.35)	0.025 ± 0.003 (0.635 ± 0.076)
M23053/18-215-*	1.000 (25.40)	0.333 (8.46)	0.030 ± 0.005 (0.762 ± 0.127)