

AEROSPACE MATERIAL SPECIFICATION

Insulation Sleeving, Electrical, Heat Shrinkable,
Fluorinated Ethylene Propylene, Non-Crosslinked

FSC 5970

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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 fluorinated ethylene propylene.

Continuous operating temperature range: -67°C (-88°F) to +200°C (+392°F).

Color: The sleeving shall be furnished in clear (water white to transparent blue), the as manufactured color.

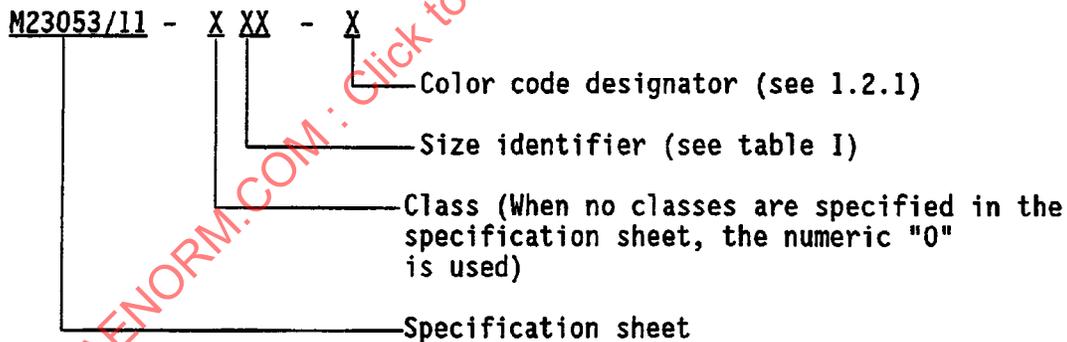
Class: The sleeving shall be furnished in the following classes, as specified (see 6.2a):

Class 1 - Normal shrink ratio, Heavy Wall

Class 2 - High shrink ratio, Medium Wall

Longitudinal change: ± 15 percent

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



Example: Class 2, 0.750 inch (19.1 mm) as supplied ID sleeving shall be identified as M23053/11-207-C.

TABLE I. Construction details, inches (mm). 1/

Military part number	As supplied ID minimum	After unrestricted shrinkage	
		ID maximum	Wall thickness 2/
Class 1			
M23053/11-101-C	.031(.79)	.027(.68)	.008 ± .002 (.20 ± .05)
M23053/11-102-C	.036(.91)	.032(.80)	.008 ± .002 (.20 ± .05)
M23053/11-103-C	.045(1.1)	.039(1.0)	.008 ± .002 (.20 ± .05)
M23053/11-104-C	.060(1.5)	.049(1.2)	.008 ± .002 (.20 ± .05)
M23053/11-105-C	.075(1.9)	.061(1.6)	.009 ± .002 (.23 ± .05)
M23053/11-106-C	.092(2.3)	.072(1.8)	.009 ± .002 (.23 ± .05)
M23053/11-107-C	.115(2.9)	.089(2.3)	.009 ± .002 (.23 ± .05)
M23053/11-108-C	.141(3.6)	.114(2.9)	.010 ± .003 (.25 ± .08)
M23053/11-109-C	.158(4.0)	.124(3.2)	.010 ± .003 (.25 ± .08)
M23053/11-110-C	.180(4.6)	.143(3.6)	.010 ± .003 (.25 ± .08)
M23053/11-111-C	.197(5.0)	.158(4.0)	.011 ± .004 (.28 ± .10)
M23053/11-112-C	.225(5.7)	.180(4.6)	.011 ± .004 (.28 ± .10)
M23053/11-113-C	.248(6.4)	.198(5.0)	.011 ± .004 (.28 ± .10)
M23053/11-114-C	.290(7.4)	.226(5.8)	.011 ± .004 (.28 ± .10)
M23053/11-115-C	.310(7.9)	.249(6.4)	.011 ± .004 (.28 ± .10)
M23053/11-116-C	.365(9.2)	.280(7.2)	.012 ± .004 (.30 ± .10)
M23053/11-117-C	.400(10.2)	.311(7.9)	.012 ± .004 (.30 ± .10)
M23053/11-118-C	.440(11.2)	.349(8.9)	.012 ± .004 (.30 ± .10)
M23053/11-119-C	.500(12.7)	.383(9.7)	.015 ± .004 (.38 ± .10)
M23053/11-120-C	.580(14.7)	.448(11.4)	.020 ± .004 (.50 ± .10)
M23053/11-121-C	.666(16.9)	.510(13.0)	.020 ± .004 (.50 ± .10)

TABLE I. Construction details, inches (mm). 1/ - Continued

Military part number	As supplied ID minimum	After unrestricted shrinkage	
		ID maximum	Wall thickness 2/
M23053/11-122-C	.830(21.1)	.637(16.1)	.025 ± .004(.64 ± .10)
M23053/11-123-C	1.000(25.4)	.764(18.9)	.030 ± .004(.80 ± .10)
M23053/11-124-C	1.170(29.7)	.891(22.7)	.035 ± .004(.90 ± .10)
M23053/11-125-C	1.300(33.0)	1.000(25.4)	.020 ± .004(.50 ± .10)
M23053/11-126-C	1.330(33.8)	1.020(25.9)	.035 ± .004(.90 ± .10)
M23053/11-127-C	1.700(43.2)	1.300(33.4)	.020 ± .004(.50 ± .10)
M23053/11-128-C	2.100(53.3)	1.700(43.2)	.020 ± .004(.50 ± .10)
M23053/11-129-C	2.600(66.0)	2.100(53.5)	.020 ± .004(.50 ± .10)
M23053/11-130-C	3.100(78.7)	2.600(66.0)	.020 ± .004(.50 ± .10)
M23053/11-131-C	3.500(88.9)	3.100(78.7)	.020 ± .004(.50 ± .10)
M23053/11-132-C	4.300(109.2)	3.500(88.9)	.020 ± .004(.50 ± .10)
M23053/11-133-C	1.500(38.1)	1.145(29.1)	.035 ± .004(.90 ± .10)
M23053/11-134-C	1.666(42.3)	1.270(32.3)	.035 ± .004(.90 ± .10)
M23053/11-135-C	1.833(46.6)	1.390(35.3)	.035 ± .004(.90 ± .10)
M23053/11-136-C	2.000(50.8)	1.570(38.6)	.035 ± .004(.90 ± .10)
Class 2			
M23053/11-201-C	.093(2.4)	.056(1.4)	.008 ± .003(.20 ± .08)
M23053/11-202-C	.125(3.2)	.075(1.9)	.010 ± .003(.25 ± .08)
M23053/11-203-C	.188(4.8)	.115(2.9)	.010 ± .003(.25 ± .08)
M23053/11-204-C	.250(6.4)	.150(3.8)	.010 ± .003(.25 ± .08)
M23053/11-205-C	.375(9.5)	.225(5.7)	.012 ± .003(.30 ± .08)
M23053/11-206-C	.500(12.7)	.300(7.6)	.015 ± .004(.38 ± .10)
M23053/11-207-C	.750(19.1)	.450(11.3)	.020 ± .004(.50 ± .10)
M23053/11-208-C	1.000(25.4)	.600(15.0)	.025 ± .005(.64 ± .12)
M23053/11-209-C	1.500(38.0)	.900(22.5)	.030 ± .005(.80 ± .12)
M23053/11-210-C	2.000(51.0)	1.200(30.0)	.030 ± .005(.80 ± .12)

1/ Diameter limits for the object to be enclosed shall be as recommended in technical data.

2/ Wall thickness values are less when shrinkage is restricted.

Unrestricted shrinkage: Test method 4.6.5: Sleeving 1 inch and below: 210° ± 6°C (410° ± 10°F).
Sleeving over 1 inch dia. 221° ± 6°C (430° ± 10°F).