

SAE Technical Standards Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

AMS-I-23053/2

FEDERAL SUPPLY CLASS
5970

NOTICE

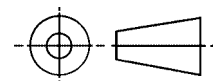
THIS DOCUMENT HAS BEEN TAKEN DIRECTLY FROM U.S. MILITARY SPECIFICATION MIL-I-23053/2C, AMENDMENT 1, NOTICE 1 AND CONTAINS ONLY MINOR EDITORIAL AND FORMAT CHANGES REQUIRED TO BRING IT INTO CONFORMANCE WITH THE PUBLISHING REQUIREMENTS OF SAE TECHNICAL STANDARDS. THE INITIAL RELEASE OF THIS DOCUMENT IS INTENDED TO REPLACE MIL-I-23053/2C, AMENDMENT 1, NOTICE 1. ANY PART NUMBERS ESTABLISHED BY THE ORIGINAL SPECIFICATION REMAIN UNCHANGED.

THE ORIGINAL MILITARY SPECIFICATION WAS ADOPTED AS AN SAE STANDARD UNDER THE PROVISIONS OF THE SAE TECHNICAL STANDARDS BOARD (TSB) RULES AND REGULATIONS (TSB 001) PERTAINING TO ACCELERATED ADOPTION OF GOVERNMENT SPECIFICATIONS AND STANDARDS. TSB RULES PROVIDE FOR (A) THE PUBLICATION OF PORTIONS OF UNREVISED GOVERNMENT SPECIFICATIONS AND STANDARDS WITHOUT CONSENSUS VOTING AT THE SAE COMMITTEE LEVEL, AND (B) THE USE OF THE EXISTING GOVERNMENT SPECIFICATION OR STANDARD FORMAT.

UNDER DEPARTMENT OF DEFENSE POLICIES AND PROCEDURES, ANY QUALIFICATION REQUIREMENTS AND ASSOCIATED QUALIFIED PRODUCTS LISTS ARE MANDATORY FOR DOD CONTRACTS. ANY REQUIREMENT RELATING TO QUALIFIED PRODUCTS LISTS (QPL'S) HAS NOT BEEN ADOPTED BY SAE AND IS NOT PART OF THIS SAE TECHNICAL DOCUMENT.

SAENORM.COM : Click to view the full PDF of amsi23053/2

THIRD ANGLE PROJECTION



ISSUED 2000-06

PREPARED BY SAE COMMITTEE AMS-CE

SAE The Engineering Society
For Advancing Mobility
Land Sea Air and Space®
INTERNATIONAL
400 Commonwealth Drive, Warrendale, PA 15096-0001

AMS SPECIFICATION

INSULATION SLEEVING, ELECTRICAL, HEAT
SHRINKABLE, POLYVINYL CHLORIDE, FLEXIBLE,
CROSSLINKED AND NON-CROSSLINKED

AMS-I-23053/2
SHEET 1 OF 6

THE COMPLETE REQUIREMENTS FOR PROCURING THE SLEEVING DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE ISSUE IN EFFECT OF MIL-I-23053.

INACTIVE FOR NEW DESIGN

REQUIREMENTS:

THESE SLEEVINGS SHALL BE EXCLUDED FROM USE ON ALL SPACE VEHICLES, ALL AIRCRAFT, AND IN ENCLOSURES WHICH ARE SEALED OR PRIMARILY DEPENDENT ON RECIRCULATED ATMOSPHERE FOR COOLING.

CONTINUOUS OPERATING TEMPERATURE RANGE: -20°C (-4°F) TO +105°C (221°F).

CLASSIFICATION: THE HEAT SHRINKABLE SLEEVING SHALL BE FURNISHED IN THE FOLLOWING CLASSES, AS SPECIFIED:

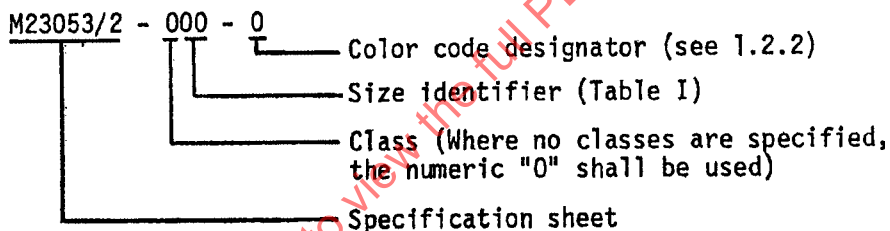
CLASS 1 - CROSSLINKED

CLASS 2 - NON-CROSSLINKED

COLOR: CLASS 1 SHALL BE FURNISHED IN COLORS CONFORMING TO CLASS II OF MIL-STD-104. CLASS 2 SHALL BE FURNISHED IN CLEAR OR COLORS CONFORMING TO CLASS II OF MIL-STD-104 (SEE 1.2.2 AND 3.5.1.5).

LONGITUDINAL CHANGE: CLASS 1, +1%; CLASS 2, -25%
-10

MILITARY PART NUMBER: THE MILITARY PART NUMBER SHALL CONSIST OF THE BASIC NUMBER OF THIS SPECIFICATION SHEET AND DASH NUMBERS AS SHOWN BELOW:



EXAMPLE: CLASS 2, STANDARD WALL, CLEAR, 0.750 INCH AS SUPPLIED ID SLEEVING SHALL BE IDENTIFIED AS M23053/2-209-C.

TABLE I. CONSTRUCTION DETAILS (INCHES) 1/

Military Part Number	As supplied	After unrestricted shrinkage	
	I.D. min.	I.D. max.	Wall thickness 2/
<u>Class 1</u>			
M23053/2-101-*	.046	.023	.020 + .003
M23053/2-102-*	.063	.031	.020 + .003
M23053/2-103-*	.093	.046	.020 + .003
M23053/2-104-*	.125	.062	.025 + .003
M23053/2-105-*	.187	.093	.025 + .003
M23053/2-106-*	.250	.125	.025 + .003
M23053/2-107-*	.375	.187	.030 + .005
M23053/2-108-*	.500	.250	.030 + .005
M23053/2-109-*	.750	.375	.035 + .005
M23053/2-110-*	1.000	.500	.040 + .005
M23053/2-111-*	1.500	.750	.045 + .006
M23053/2-112-*	2.000	1.000	.050 + .007
<u>Class 2</u>			
<u>Standard Wall</u>			
M23053/2-201-*	.046	.023	.020 + .003
M23053/2-202-*	.063	.031	.020 + .003
M23053/2-203-*	.093	.046	.020 + .003
M23053/2-204-*	.125	.062	.025 + .003
M23053/2-205-*	.187	.093	.025 + .003
M23053/2-206-*	.250	.125	.025 + .003
M23053/2-207-*	.375	.187	.030 + .005
M23053/2-208-*	.500	.250	.030 + .005
M23053/2-209-*	.750	.375	.035 + .005
M23053/2-210-*	1.000	.500	.040 + .005
M23053/2-211-*	1.500	.750	.045 + .006
M23053/2-212-*	2.000	1.000	.050 + .007
<u>Thin Wall</u>			
M23053/2-213-*	.063	.037	.014 + .003
M23053/2-214-*	.093	.055	.014 + .003
M23053/2-215-*	.125	.075	.014 + .003
M23053/2-216-*	.187	.110	.018 + .003
M23053/2-217-*	.250	.150	.022 + .004
M23053/2-218-*	.375	.225	.022 + .004

AMS-I-23053/2

AMS SPECIFICATION

INSULATION SLEEVING, ELECTRICAL, HEAT
SHRINKABLE, POLYVINYL CHLORIDE, FLEXIBLE,
CROSSLINKED AND NON-CROSSLINKED

AMS-I-23053/2

SHEET 3 OF 6

TABLE I. CONSTRUCTION DETAILS (INCHES) 1/ (CONTINUED)

Military Part Number	As supplied I.D. min.	After unrestricted shrinkage	
		I.D. max.	Wall thickness 2/
<u>Class 2</u>			
<u>Thin Wall</u>			
M23053/2-219-*	.500	.300	.022 + .004
M23053/2-220-*	.750	.450	.022 + .004
M23053/2-221-*	1.000	.600	.022 + .004
M23053/2-222-*	1.500	.900	.034 + .005
M23053/2-223-*	2.000	1.200	.034 + .005
M23053/2-224-*	3.000	1.800	.034 + .005
M23053/2-225-*	4.000	2.400	.034 + .005
M23053/2-226-*	5.000	3.000	.034 + .005
M23053/2-227-*	6.000	3.600	.034 + .005

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

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

* - The asterisk in the part number shall be replaced by color code designations (see page 1 for available colors).

UNRESTRICTED SHRINKAGE: TEST METHOD 4.6.5; CLASS 1, $200 \pm 2^{\circ}\text{C}$ ($392 \pm 4^{\circ}\text{F}$) FOR 5 MINUTES. CLASS 2, $150 \pm 2^{\circ}\text{C}$ ($302 \pm 4^{\circ}\text{F}$) FOR 5 MINUTES.