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AS60491™/6

FEDERAL SUPPLY CLASS
5970

RATIONALE

THIS DOCUMENT IS A NEW STANDARD FOR CHAFE-PROTECTION SLEEVES FOR APPLICATION ON WIRING BUNDLES.

NOTICE

THE REQUIREMENTS FOR ACQUIRING THE COMPONENTS DESCRIBED HEREIN SHALL CONSIST OF THIS SPECIFICATION AND THE LATEST ISSUE OF AS60491.

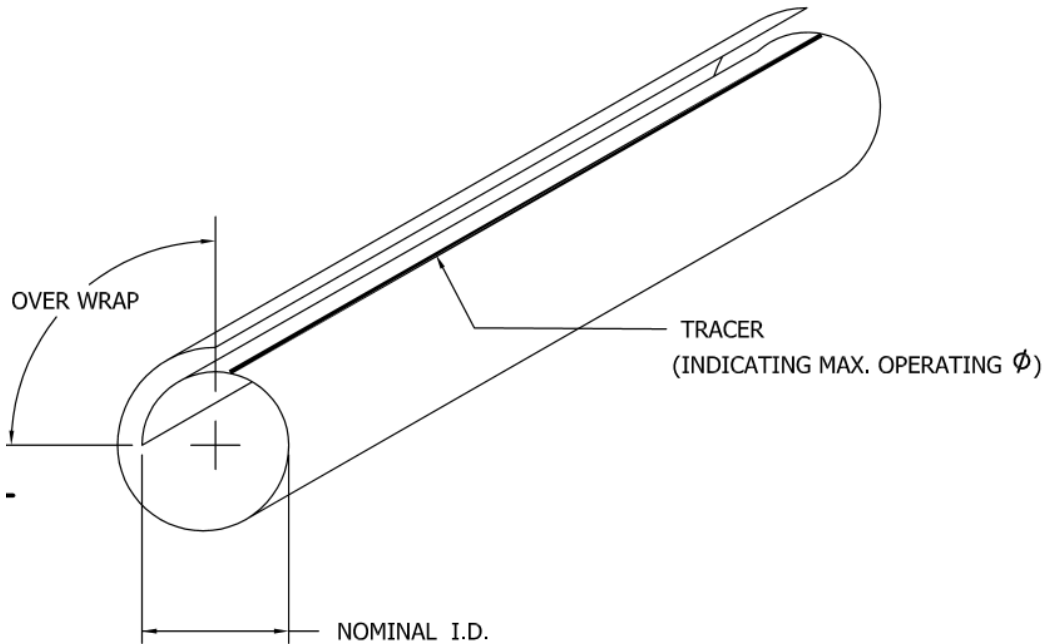
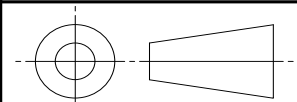


FIGURE 1 - WRAP-AROUND SLEEVE

For more information on this standard, visit
<https://www.sae.org/standards/content/AS60491/6/>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8D

PROCUREMENT SPECIFICATION: AS60491



AEROSPACE STANDARD

SLEEVE, CHAFE PROTECTION,
WRAP-AROUND, SELF-CLOSING
(-55 TO +175 °C)

AS60491™/6
SHEET 1 OF 3

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REQUIREMENTS:

1. DIMENSIONS:

DIMENSIONS ARE IN INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE ± 0.010 (0.25 MM) FOR THREE PLACE DECIMALS AND ± 5 DEGREE FOR ANGLES. METRIC EQUIVALENTS (MM) TO THE NEAREST 0.01 MM ARE GIVEN FOR GENERAL INFORMATION AND REFERENCE ONLY. VALUES ARE CALCULATED AND ROUNDED ON 1 INCH = 25.4 MM. OUTLINE CONFIGURATION OPTIONAL WITHIN MAXIMUM DIMENSIONS SHOWN IN FIGURE 1.

2. MATERIALS:

SLEEVE BODY SHALL BE WOVEN OF THE FOLLOWING MATERIAL:

POLYPHENYLENE SULFIDE (PPS) MONOFILAMENT MANUFACTURED WITH PPS RESIN IN ACCORDANCE WITH ASTM D6358.

3. CONFIGURATION:

SLEEVE CONSTRUCTION SHALL BE IN ACCORDANCE WITH FIGURE 1 AND TABLE 1. TOTAL MAXIMUM WALL THICKNESS OF THE SLEEVE IS .035 INCH (0.90 MM) AND MINIMUM WALL THICKNESS IS .028 INCH (0.70 MM).

3.1 COLOR:

SLEEVE COLOR SHALL BE BLACK.

TRACER LINE COLOR SHALL BE WHITE (IVORY) (SEE APPLICATION NOTE 6.1).

3.2 DIMENSIONS AND WEIGHT:

PER TABLE 1.

TABLE 1 - DIMENSIONS AND WEIGHT

SIZE CODE	OVERLAP ANGLE (MAX DIA BUNDLE)		WIRE BUNDLE DIA INCHES (MM) ØD		WEIGHT LBS/FT (G/M)	THICKNESS INCHES (MM)
	MIN	MAX	MIN	MAX	MAX	
05	70°	130°	1/32 (1)	3/16 (5)	.007 (11)	0.028-0.035 (0.70-0.90)
08			3/16 (5)	5/16 (8)	.009 (14)	
13			5/16 (8)	1/2 (13)	.016 (24)	
19			1/2 (13)	3/4 (19)	.021 (31)	
25			3/4 (19)	1 (25)	.027 (40)	
32			1 (25)	1-1/4 (32)	.034 (51)	
38			1-1/4 (32)	1-1/2 (38)	.042 (63)	

3.3 OVERLAP ANGLE (SEE FIGURE 1) SHALL BE IN ACCORDANCE WITH TABLE 1.

4. PERFORMANCE REQUIREMENTS:

4.1 TEMPERATURE RATING: -67 TO +347 °F (-55 TO 175 °C).

4.2 IN AS60491, THE DRY DIELECTRIC VOLTAGE TEST (5.3) SHALL BE REPLACED BY THE FOLLOWING:

SLEEVE MUST HAVE VOLUME RESISTANCE GREATER THAN 1 GIGAOHM WHEN TESTED PER ASTM D257 UNDER THE BELOW CONDITIONS. EQUIPMENT USED TO CONDUCT TESTING SHOULD BE KEITHLEY 8009 RESISTIVITY TEST FIXTURE OR EQUIVALENT:

SAMPLES PRECONDITIONED PER: ASTM D618 SECTION 9.1 PROCEDURE A (40/23/50).

TEST VOLTAGE: 500 VDC.

DURATION: 60 SECONDS.

SAMPLE CONFIGURATION: 2.25 IN² (1452 MM²).

THE POLARITY OF THE VOLTAGE SHALL BE REVERSED AND THE TEST REPEATED. THE VOLUME RESISTANCE SHALL BE THE MINIMUM OF THE TWO READINGS AND SHALL BE GREATER THAN 1 GIGAOHM.

	AEROSPACE STANDARD	AS60491™/6	
	SLEEVE, CHAFE PROTECTION, WRAP-AROUND, SELF-CLOSING (-55 TO +175 °C)	SHEET 2 OF 3	

