

SAE Executive Standards Committee 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 revised, reaffirmed, stabilized, or cancelled. SAE invites your written comments and suggestions.

AS60491™/2

RATIONALE

FEDERAL SUPPLY CLASS
5970

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

AS60491/2 HAS BEEN REAFFIRMED TO COMPLY WITH THE SAE FIVE-YEAR REVIEW POLICY.

A REAFFIRMED STATUS IS GIVEN TO TECHNICAL REPORTS THAT HAVE BEEN REVIEWED BY THE TECHNICAL COMMITTEE AND DEEMED TO BE CURRENT WITH NO NEED FOR IMMEDIATE REVISION. NO CHANGES HAVE BEEN MADE TO THIS DOCUMENT AS A RESULT OF THIS REVIEW.

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS60491.

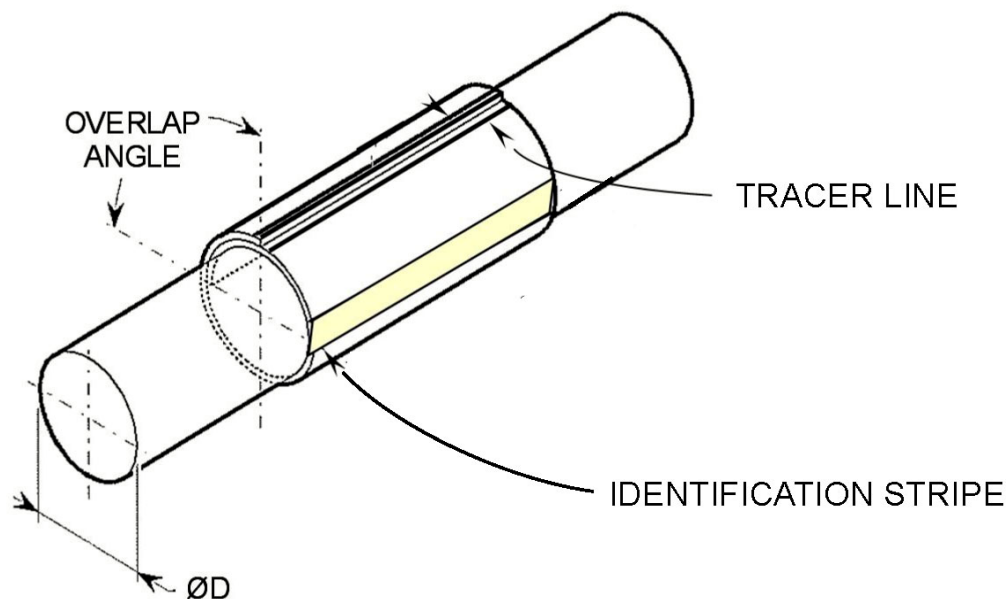
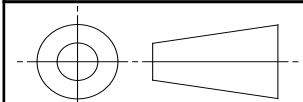


FIGURE 1 - WRAP AROUND SLEEVE

For more information on this standard, visit
<https://www.sae.org/standards/content/AS60491/2/>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8D

PROCUREMENT SPECIFICATION: AS60491



AEROSPACE STANDARD

SLEEVE, CHAFE-PROTECTION, WRAP-AROUND,
SELF-CLOSING (-55° TO +260°C)

AS60491™/2
SHEET 1 OF 3

Copyright © 2026 SAE International

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, or used for text and data mining, AI training, or similar technologies, without the prior written permission of SAE.

TO PLACE A DOCUMENT ORDER: Tel: 1-877-606-7323 (U.S. and Canada only)
Fax: 724-776-0790

Tel: 1-724-776-4970 (outside U.S. and Canada)
Email: CustomerService@sae.org

SAE WEB ADDRESS: <http://www.sae.org>

REQUIREMENTS:

1. DIMENSIONS:

DIMENSIONS ARE INCHES. UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE ± 0.010 (0.25 MM) FOR THREE PLACE DECIMALS AND $\pm 0.5^\circ$ 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 A WOVEN BLEND OF THE FOLLOWING MATERIALS:

POLYETHERETHERKETONE MONOFILAMENT FIBER MANUFACTURED WITH PEEK RESIN IN ACCORDANCE WITH ASTM D4000 PEEK0000 CD334 GA130 KB090 LB010 UA034.

META-ARAMID CONTINUOUS-FILAMENT YARN FIBER IN ACCORDANCE WITH MIL-PRF-572 TYPE PAA.

SLEEVE SHALL BE TREATED WITH A WATER REPELLENT COATING.

3. CONFIGURATION:

SLEEVE CONSTRUCTION SHALL BE IN ACCORDANCE WITH FIGURE 1 AND TABLE 1.

IDENTIFICATION STRIPE SHALL BE .35 INCHES WIDE (9 MM), AND VISIBLE ON THE SMALLEST DIAMETER WIRE BUNDLE (SEE APPLICATION NOTE 2).

TOTAL MAXIMUM WALL THICKNESS OF THE SLEEVE IS .035 INCHES (0.88 MM) AND MINIMUM WALL THICKNESS IS .027 INCHES (0.68 MM).

3.1 COLOR:

SLEEVE COLOR SHALL BE OLIVE GREEN WITH WHITE (IVORY) IDENTIFICATION STRIPE (SEE APPLICATION NOTE 2).

TRACER LINE COLOR SHALL BE NATURAL (IVORY) (SEE APPLICATION NOTE 1).

IDENTIFICATION STRIPE COLOR SHALL BE WHITE (IVORY).

3.2 DIMENSIONS AND WEIGHT:

TABLE 1 - DIMENSIONS AND WEIGHT

SIZE CODE	OVERLAP ANGLE (MAX DIA BUNDLE)		WIRE BUNDLE DIA IN (MM) ØD		WEIGHT LBS/FT (G/M)		THICKNESS IN (MM)
	MIN	MAX	MIN	MAX	MIN	MAX	
05	65°	130°	1/32 (1)	3/16 (5)	.010 (15)	.013 (20)	.027-.035 (0.68-0.88)
08			3/16 (5)	5/16 (8)	.013 (20)	.018 (27)	
13			5/16 (8)	1/2 (13)	.019 (29)	.026 (39)	
19			½ (13)	3/4 (19)	.030 (45)	.040 (60)	
25			3/4 (19)	1 (25)	.037 (55)	.049 (73)	
32			1 (25)	1-1/4 (32)	.047 (70)	.062 (93)	
40			1-1/4 (32)	1-1/2 (40)	.058 (87)	.078 (116)	

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

4. PERFORMANCE REQUIREMENTS:

4.1 TEMPERATURE RATING: -67 TO +500 °F (-55 TO 260 °C).

4.2 IN AS60491 THE DRY DIELECTRIC 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 D618-13 SECTION 9.1 PROCEDURE A (40/23/50).

TEST VOLTAGE: 500 V DC.

	AEROSPACE STANDARD	AS60491™/2 SHEET 2 OF 3 
	SLEEVE, CHAFE-PROTECTION, WRAP-AROUND, SELF-CLOSING (-55° TO +260°C)	



Document Sharing Hub