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AS6224™/1

FEDERAL SUPPLY CLASS
5940

RATIONALE

THIS DOCUMENT PROVIDES THE REQUIREMENTS FOR A NEW ENVIRONMENT RESISTANT REPAIR SLEEVE TO PROVIDE MEANS TO REPAIR WIRE INSULATION DAMAGE.

NOTICE

THE COMPLETE REQUIREMENTS FOR PROCURING THE PRODUCT DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS6224.

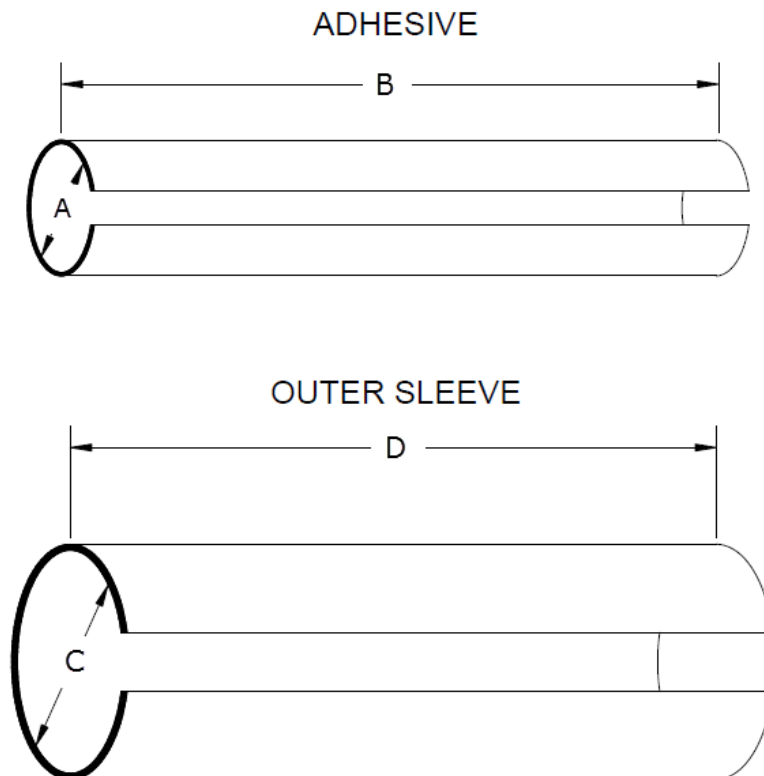
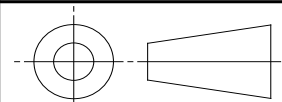


FIGURE 1 - REPAIR SLEEVE CONFIGURATION

For more information on this standard, visit
<https://www.sae.org/standards/content/AS6224/1>

THIRD ANGLE PROJECTION



CUSTODIAN: AE-8/AE-8C2

PROCUREMENT SPECIFICATION: AS6224



AEROSPACE STANDARD

REPAIR SLEEVE, PRIMARY WIRE INSULATION DAMAGE,
ELECTRIC, PERMANENT, ENVIRONMENT RESISTANT,
150 °C MAXIMUM OPERATING TEMPERATURE

AS6224™/1
SHEET 1 OF 5

Documents

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TABLE 1 - CONSTRUCTION DETAILS

PART NUMBER	TYPICAL WIRE SIZE RANGE (REF)	COLOR CODE	A REF 1/	B ±.06 ±(1.5)	C REF 1/	D ±.06 ±(1.5)	MINIMUM WIRE O.D.	MAXIMUM WIRE O.D.	WEIGHT LB (Kg) PER 1,000 PIECES MAXIMUM
AS6224/1-1	24-26	GREEN	.044 (1.11)	.86 (21.8)	.090 (2.29)	.75 (19.1)	.031 (0.80)	.043 (1.10)	.445 (0.202)
AS6224/1-2	20-22	RED	.066 (1.68)	.86 (21.8)	.108 (2.74)	.75 (19.1)	.044 (1.11)	.059 (1.50)	.533 (0.242)
AS6224/1-3	16-18	BLUE	.084 (2.13)	.86 (21.8)	.135 (3.43)	.75 (19.1)	.060 (1.52)	.090 (2.30)	.703 (0.319)
AS6224/1-4	12-14	YELLOW	.133 (3.34)	.86 (21.8)	.189 (4.80)	.75 (19.1)	.091 (2.31)	.110 (2.80)	.892 (0.405)

1/ REFERENCE DIAMETERS ARE PRIOR TO THE SLITTING OF THE SLEEVE.

REQUIREMENTS: ALL REQUIREMENTS SHALL CONSIST OF THIS DOCUMENT AND THE LATEST ISSUE OF AS6224.

- DESIGN: THE REPAIR SLEEVE SHALL BE DESIGNED IN ACCORDANCE WITH FIGURE 1 AND TABLE 1. DIMENSIONS ARE IN INCHES. METRIC EQUIVALENTS (TO THE NEAREST 0.01 MM) ARE GIVEN FOR GENERAL INFORMATION ONLY AND ARE BASED UPON 1 INCH = 25.4 MM. UNLESS OTHERWISE SPECIFIED, TOLERANCES ARE .005 (0.13 MM) FOR THREE PLACE DECIMALS AND .01 (0.25 MM) FOR TWO PLACE DECIMALS.
- MATERIALS:
OUTER SLEEVE: HEAT SHRINKABLE CROSS-LINKED FLUOROPOLYMER - COLOR CODED PER TABLE 1.
ADHESIVE: HEAT MELTABLE MODIFIED FLUOROELASTOMER THERMOPLASTIC - COLOR CODED PER TABLE 1.
- OPERATING TEMPERATURE: -55 TO 150 °C.
- CONTOUR: THE CONTOUR OF THE SPLICE MAY VARY FROM THAT SHOWN PROVIDED THAT THE OUTER SLEEVE AND ADHESIVE REMAINS WITHIN THE MAXIMUM ENVELOPE DIMENSIONS.
- NO ETCHING OR SOLVENT TREATING OF THE ASSOCIATED WIRE INSULATION SHALL BE PERMITTED.
- SEALING SLEEVE CLOSURE: WHEN INSTALLED, MELTABLE SEALANT SHALL CLOSE THE OPENING AND PROVIDE SEALING.
- SLIP RESISTANCE STRENGTH REQUIREMENT: SEE TABLE 2.
- REPAIRABLE CONDITION: IF THE CONDUCTOR IS EXPOSED, THERE SHALL BE NO DAMAGE TO THE CONDUCTOR, AND THE EXPOSED CONDUCTOR SHALL BE NO LONGER THAN .25 INCH ALONG THE LENGTH OF THE WIRE OR IN THE LONGEST LENGTH FROM AN EDGE OF THE DAMAGE TO THE OTHER SIDE. THE AMOUNT OF INSULATION DAMAGE AT THE WIDEST POINT SHALL BE LESS THAN 55% OF WIRE OR CABLE CIRCUMFERENCE.
- QUALIFICATION:

TABLE 2 - TEST WIRE AND SLIP RESISTANCE REQUIREMENTS

PART NUMBER	WIRE RANGE (COLOR OPTIONAL)		SLIP RESISTANCE
	MINIMUM	MAXIMUM	MINIMUM (LBF)
AS6224/1-1	M22759/11-26 M22759/82-26	M22759/11-24 M22759/82-24	2
AS6224/1-2	M22759/11-22 M22759/82-22	M22759/11-20 M22759/82-20	4
AS6224/1-3	M22759/11-16 M22759/82-16	M22759/11-18 M22759/82-18	6
AS6224/1-4	M22759/11-14 M22759/82-14	M22759/11-12 M22759/82-12	8

QUALIFICATION SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST ISSUE OF AS6224 UNLESS OTHERWISE SPECIFIED IN THIS DETAIL SPECIFICATION.

DIAMETERS A AND C SHALL BE VERIFIED ON OUTER SLEEVE AND ADHESIVE PRIOR TO BEING CUT WITH THE SLIT. OUTER SLEEVE AND ADHESIVE SAMPLES WITHOUT THE SLIT SHALL BE SUBMITTED TO THE QUALIFYING AGENCY OR OTHER APPLICABLE TESTING FACILITIES.

	AEROSPACE STANDARD	AS6224™/1 SHEET 2 OF 5	
	REPAIR SLEEVE, PRIMARY WIRE INSULATION DAMAGE, ELECTRIC, PERMANENT, ENVIRONMENT RESISTANT, 150 °C MAXIMUM OPERATING TEMPERATURE		

