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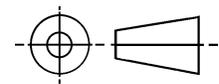
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THIRD ANGLE PROJECTION



ISSUED 2002-02

CUSTODIAN: SAE AMS "P"



AEROSPACE STANDARD

INSULATING COMPONENTS, MOLDED,
ELECTRICAL, HEAT SHRINKABLE FLUOROPOLYMER,
SEMI-RIGID, CROSSLINKED

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SHEET 1 OF 4

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THIS SPECIFICATION IS APPROVED FOR USE BY ALL DEPARTMENTS AND AGENCIES OF THE DEPARTMENT OF DEFENSE.

THE COMPLETE REQUIREMENTS FOR PROCURING THE INSULATING COMPONENTS DESCRIBED HEREIN SHALL CONSIST OF THIS DOCUMENT AND THE ISSUE IN EFFECT OF MIL-I-81765.

REQUIREMENTS:

CONTINUOUS OPERATING TEMPERATURE RANGE: -55°C (-67°F) TO + 150°C (+302°F)

COLOR: UNLESS OTHERWISE SPECIFIED, MOLDED COMPONENTS FABRICATED TO THE REQUIREMENTS HEREIN SHALL BE FURNISHED IN BLACK.

PROPERTIES: PROPERTIES SHALL BE IN ACCORDANCE WITH TABLE I.

TABLE I. PHYSICAL PROPERTIES

Property	Requirement	Test Method
Dimensions, inches As received After shrinkage	Shall be in accordance with the applicable drawing, specification or procurement document	4.6.1 Shrinkage - 200°+ 3°C (394°+ 5°F) for 10 minutes
Elastic memory, %, min Expansion Retraction	275 90	4.6.2 175°+ 2°C (347°+ 4°F) for 1 minute; 4 inch stretch
Tensile strength, psi, (MPa), min	4000 (27.5)	4.6.3 2 inches/ minute
Ultimate elongation, %, min	300	4.6.3 2 inches/ minute

TABLE I (CONTINUED)

Property	Requirement	Test Method
Low temperature flexibility	No cracking	4.6.4 $-55^{\circ} \pm 2^{\circ}\text{C}$ ($-67^{\circ} \pm 4^{\circ}\text{F}$) for 4 hours
Heat shock	No dripping, flowing or cracking	4.6.5 $300^{\circ} \pm 3^{\circ}\text{C}$ ($572^{\circ} \pm 5^{\circ}\text{F}$) for 4 hours
Heat resistance Tensile strength, psi, (MPa), min Elongation, %, min	3000 (20.7) 300	4.6.6 $250^{\circ} \pm 2^{\circ}\text{C}$ ($482^{\circ} \pm 4^{\circ}\text{F}$) for 168 hours
Fluid resistance Tensile strength, psi, (MPa), min Elongation, %, min Weight increase, %, max	4000 (27.5) 300 6	4.6.7 (1)
Corrosion	No corrosion	4.6.8 $175^{\circ} \pm 3^{\circ}\text{C}$ ($347^{\circ} \pm 5^{\circ}\text{F}$) for 16 hours
Stiffness, psi, max	70,000	ASTM D 747
Dielectric strength, volts/mil, (kV/mm), min	300 (11.9)	ASTM D 149
Volume resistivity, ohm-cm, min	10^{13}	ASTM D 257
Water absorption, %, max	0.5	ASTM D 570 $23^{\circ} \pm 2^{\circ}\text{C}$ ($73^{\circ} \pm 4^{\circ}\text{F}$) for 24 hours
Flammability Ave. time of burning, sec., max. Ave. extent of burning, in. (mm) max	15 1 (25)	ASTM D 635
Fungus resistance	Rating of 0	ASTM G 21
Specific gravity, max	1.85	ASTM D 792

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