



ENGINEERING DATA SHEET

GRADE: SPAUDITE® ARP-1 LAMINATE SHEET

Revision: _____ Issued: _____

Spauldite® Grade ARP-1 is an economy grade paper base phenolic laminate, which can be punched at temperatures from 200°F to 240°F, up to .093" thickness. It is a good mechanical material with a flexural strength, which exceeds NEMA XP requirements. This material is made from low cost resins and may have color and surface appearance which is not uniform; however, its smoothness should be consistent with that expected from other industrial type laminates.

MAJOR FEATURES

- Withstands 375°F in Hot Oil for 2 Hours Without Blistering
- Good Machinability
- Good Flexural Strength
- Punchable up to .093" Thick

APPLICATIONS

Spauldite® Grade ARP-1 has non-blistering characteristics, making it suitable for thrust washers exposed to hot oil for a maximum of 2 hours at 375°F. It is relatively low cost and punchable, making it suitable for use in washers, and spacers. This grade cannot be used where excellent surface appearance is required.

ELECTRIAL CHARACTERISTICS

Grade ARP-1 is a fair insulator that may be used where electrical insulating requirements are not severe.

FABRICATION

This grade machines readily using standard production techniques and equipment. It can be sawed, drilled, milled and turned to a smooth surface finish.

MECHANICAL CHARACTERISTICS

The material's lightweight sturdiness and easy machinability qualify it as a good material for limited mechanical applications. It will support loads under compression, providing impact requirements are within the limits indicated on the data sheet.

In addition to manufacturing Spauldite® high pressure laminated sheets, rods and tubes, Spaulding has complete fabricating facilities for all types of machining, drilling and punching of laminated materials.

STANDARD SHEET SIZE¹: 48" X 36"

COLOR: NATURAL

THICKNESS: .020"-.500"

¹ Contact Customer Service for availability of additional sheet sizes.

"To the best of our knowledge the information contained herein is accurate; however, Spaulding Composites Company, Inc. does not accept any liability regarding the accuracy or completeness of such information. Further, such information is based on standard base material and thus may change if the product ordered by purchaser requires further processing of base material by us and/or the purchaser. Purchaser has the sole responsibility in determining the suitability of any material described herein for the use contemplated and the processing of such material by purchaser."



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PROPERTY CHARACTERISTICS

PROPERTY	ASTM TEST METHOD	CONDITIONING & TEST TYPE	UNITS	THICKNESS (INCHES)	AVERAGE TYPICAL VALUES	REFERENCE VALUES
ELECTRICAL						
Dielectric Breakdown (Parallel-Taper Pin)	D-229	A (S/S)	kV	.062	>50	>40
Dielectric Strength (Perpendicular)	D-229	A (S/T)	V/mil	.062	500	TBD
MECHANICAL						
Compressive Strength (Flatwise)	D-229	A	psi	.062	38,400	-
Flexural Strength (Flatwise)	D-229	A Lengthwise Crosswise	psi	.062 .062	35,800 24,000	>13,000 >11,000
Flexural Strength (Flatwise)	D-229	E-1000/150: T-23 Lengthwise Crosswise	psi	.062 .062	22,100 16,000	-
Flexural Strength (Flatwise)	D-229	E-200/177: T-23 Lengthwise Crosswise	psi	.062 .062	19,400 14,000	-
Izod Impact Edgewise Notched	D-229	E-48/50 Lengthwise Crosswise	ft-lbs/in	.062 .062	1.13 .89	-
Tensile Strength	D-229	A Lengthwise Crosswise	psi	.062 .062	27,600 16,300	TBD TBD
PHYSICAL						
Density	D-792	A	lbs/in ³	-	.048	TBD
Rockwell Hardness	D-229	A	M Scale	-	M94	TBD
Thermal Coefficient of Linear Expansion	D-696	A Down Lengthwise Crosswise	in/in/°C	-	3.6 X 10 ⁻⁶ 13.8 x 10 ⁻⁶	TBD
Water Absorption	D-229	E-1/105+	%	.094	2.8	TBD

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