



**ACOUSTICAL**  
Celebrating 38 years — since 1980

**SURFACES INC.**

Soundproofing | Acoustics | Noise & Vibration Control

## Sound Silencer Acoustical Panels

Material Physical Properties for ASTM E-84 Fire Retardant (FR) PEPP  
Molded from Porous Expanded Polypropylene Beads (PEPP)

PHYSICAL PROPERTY	TEST METHOD	UNITS	TEST RESULTS		
Density	ASTM-D3575	pcf (g/l)	1.6 (25)	2.8 (45)	3.7 (60)
Porosity <sup>1</sup>	JPSI Internal	%	30	30	30
Compressive Strength	ASTM-D3575				
@25% Strain		psi	10.0	23.0	33.0
@50% Strain		psi	17.0	35.0	50.0
@75% Strain		ps	48.0	79.0	115.0
Compression Set	ASTM-D3575	%	8.0	9.0	9.0
Tensile Strength	ASTM-D3575	psi	22.0	27.0	28.0
Tensile Elongation	ASTM-D3575	%	15.0	13.0	12.0
Tear Strength	ASTM-D3575	lbs/inch	14.5	18.8	22.0
Thermal Conductivity	ASTM-C177 @ 75°F	(K) BTU-in/(ft <sup>2</sup> -hr-°F)	0.26	0.26	0.26
Thermal Stability	ASTM-D3575	%	< 1.0%	< 1.0%	< 1.0%
Linear Dimensional Change	24 hrs @ 225°F				
Thermal Resistance	ASTM-C177	(R)	3.8	3.8	3.8
Coefficient of Linear Thermal Expansion	ASTM-D696				
70°F to -40°F		in/in/°F x 10 <sup>-5</sup>	7.5	6.4	5.0
70°F to -180°F		in/in/°F x 10 <sup>-5</sup>	11.5	10.8	9.7
Water Vapor Permeability	ASTM-E96	lbs.ft <sup>2</sup> /hrmmHg	7.5 x 10 <sup>-5</sup>	6.6 x 10 <sup>-5</sup>	5.9 x 10 <sup>-5</sup>
Water Absorption	ASTM-C272	lbs/in <sup>3</sup> x 10 <sup>-3</sup>	7.2	6.5	5.3
Flammability	FMVSS-302	< 4.0 in/min.	Pass	Pass	Pass
	ASTM-E84	Flame Spread Index <sup>2</sup>	TBD	3 (1" Thick)	TBD
	ASTM-E84	Smoke Development Index <sup>2</sup>	TBD	5 (2" Thick)	TBD
	UL-94	Flame Class <sup>3</sup>	TBN	84 (1" Thick)	TBD
				113 (2" Thick)	TBD
Chemical Resistance (Auto fuels, fluids, solvents)	Various	1 hr exposure	Pass	Pass	Pass

**Notes:** Above values shown are typical for Fire Retardant (FR) PEPP Sound Silencer Panels.

<sup>1</sup> Porosity of 30% (Min.) based on a molded compression ratio of @ 10%

<sup>2</sup> Testing performed on Black PEPP. Sound Silencer FR PEPP is a Class 1A product (per NFPA No. 101)

<sup>3</sup> Flame Class Equivalent

pcf = pounds/cubic foot, g/l = grams/liter

TBD = To be determined (Testing in progress)

The information contained herein is based upon the results of limited laboratory tests on xxxxxx samples of material molded from expanded polypropylene resin manufactured by JSP International. There can be no assurance that the similar results will be achieved in simulated tests or actual use of commercial product molded by customers of JSP International. Product performance may vary substantially depending upon the particular application or processing involved. The listed properties are illustrative only and not the product specifications. All suggestions and recommendations are made without warranty since the conditions of uses are beyond JSP International's control. Processing and applications of JSP International foam products can influence molded part performance in many ways. Consequently, processors and/or users are advised that there may be a need to conduct independent tests and experiments in order for them to determine the extent to which they may choose to rely upon such information in business operations. JSP International disclaims any liability in connection with the use of the information and does not warrant against xxxxxxxxxxxx by reasons of the use of its products in combination with other material or in any xxxxxxxxxx.