TECHNICON ACOUSTICS
SOUND SCIENCE

PRODUCT: **VBPF-X91-X1-NR-00** **REV071723NT**

PRODUCT DESCRIPTION: PVC barrier with acoustic polyester fiber absorber, 0.25-inch polyester foam decoupler layer, and black high noise reduction coefficient facing.

FACING

Physical Property	Description - Value		Test Method
Material	100% Polyethylene Terephthalate		
Coating Color	Black		
Thickness	23 mil (0.58 mm)		ASTM D 5729
Basis Weight	0.0244 lb/ft^2 (1.17 N/m^2)		ASTM D3776
Airflow Resistance	2500 rayls [Pa*s/m]		ASTM C 522
	Machine Direction	**Cross Direction**	
Breaking Force	53 lb/in (600 N/cm)	42 lb/in (470 N/cm)	ASTM D 5035
Elongation	30%	64%	ASTM D 5035
Roll Width	75 in (190.5 cm)		
Flame Retardance	Pass		ASTM D 5123, FMVSS 302

ABSORBER

Physical Property	Description - Value
Material	Proprietary fire-resistant fiber blend
Color	Grey
Areal Weight @ 1 in thick	0.143 lb/ft^2 (22.5 N/m^2) +/- 10%
Service Temperature	-40 to 350 °F (-40 to 177 °C)
Flammability	Passes FMVSS 302, UL HBF UL 94 HF-1 Listed
Glow Wire Ignition temp	1292 °F (700 °C)
Glow Wire Flam. Index	1382 °F (750 °C)

BARRIER

Physical Property	Description – Value
Material	Flexible Polyvinylchloride (PVC vinyl)
Color	Charcoal Gray
Specific Gravity	112 lb/ft^3 (1800 kg/m^3)
Weight Range	0.5 to 2.0 lb/ft^2 (2.4 to 9.8 kg/m^2) +/- 10%
Flammability	FMVSS 302
Service Temperature	-40 to 220 °F (-40 to 104 °C)
Chemical Resistance	Excellent for most acids, mild alkalis, oils, and grease

DECOUPLER

Physical Property	Description - Value	
Material	Polyester Polyurethane Foam	
Color	Charcoal	
Available Thicknesses	0.125 in (3.18 mm) - 4.0 in (102 mm)	
Density	2.00 lb/ft^3 (314 N/m^3) +/- 0.10%	
	Minimum	**Average**
Tensile Strength	18.0 psi (124 kPa)	25.0 psi (172 kPa)
Elongation	170%	220%
Tear Resistance	2.00 lb/in (3.50 N/cm)	2.50 lb/in (4.37 N/cm)
Compression Force Deflection 25% Deflection	0.40 psi (2.8 kPa)	0.50 psi (3.4 kPa)
Compression Force Deflection 50% Deflection	0.45 psi (3.1 kPa)	0.60 psi (4.1 kPa)
Compression Set @ 50%	8% maximum	
Retention of Tensile Strength after 3 hours, 105°C, Steam Autoclave	70% minimum	
Retention of Tensile Strength after 22 hours, 140°C, Dry Heat Aging	70% minimum	
Pores per inch	55 +/- 5	
Flammability	FMVSS 302, UL 94 HF-1	

Test Methods: ASTM-D3574-[latest revision]. Standard Methods of Testing Flexible Cellular Materials – Slab, Bonded, and Molded Urethane Foam.

ACOUSTIC PROPERTIES

Transmission Loss and STC to ASTM E 90 and E 413

For 1 lb/ft^2 Barrier ONLY

Frequency (f) [Hz]	125	250	500	1000	2000	4000	**STC**
Transmission Loss (TL) [dB]	17	19	24	29	34	40	**28**

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