



PRODUCT NEWS

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VOLARA TYPE AF - CROSSLINKED POLYETHYLENE FOAM

Product Definition

Volara Type AF was developed to meet certain federal, military and industry requirements on the flammability of cellular plastics. The data presented here shows its performance when tested in accordance with these test methods. It should be understood that laboratory tests do not represent actual fire conditions. Volara Type AF is an irradiation crosslinked polyethylene foam with a continuous smooth surface, fine cell structure, excellent mechanical properties, combined with certain fire retardant properties. Standard colors are white, black and charcoal.

Product Form

Volara Type AF is produced in a 2 pcf density.
Standard width is 60" (other widths are available)
Standard thicknesses are as follows:

<u>Density</u>	<u>Thickness Range</u>
2 pcf	1/8" to 5/8" roll 1/2" to 1-1/2" sheet

Typical Properties of Volara Type AF

<u>Specification</u>		<u>Values</u>
Compressive Strength, psi (ASTM D1056)		
@ 25% Deflection	-	5.0
@ 50% Deflection	-	12.8
Compression Set		
% of Original Thickness	-	26 max.
(ASTM D395)		
Tensile Strength, psi	M	54
(ASTM D1564)	CM	38
Elongation, % to Break	M	121
(ASTM D1564)	CM	98
Tear Resistance, lb./in.	M	11
(ASTM D624)	CM	7
Thermal Stability, % Shrinkage	M @ 180 deg. F	3.0
Linear, Max., 3 hr., No Load	CM "	2.0
	M @ 215 deg. F	6.0
	CM "	4.0
M:	Machine Direction	
CM:	Cross-Machine Direction	

FLAMMABILITY PROPERTIES - VOLARA TYPE AF

FEDERAL STANDARDS

No.	Criterion	Type A	Type AF
FMVSS-302 Motor Vehicle	Horizontal Burn Rate < 4.0 ipm	Pass (if 5/16" & thicker)	Pass
FAR 25.853b Aircraft	Vertical < 8 in. length < 15 sec. Drips < 5 sec.	Fail	Fail
DOC FF1-70 Fabrics & Carpets (Pill Test)	SE within Radius of < 3.5 in.	Fail	Pass
USCG 164.015-4(g) Lifejackets, Class B	Horizontal < 4.0 ipm	Pass (1/2" only)	Pass
Federal Hazardous Substances Act (Toys)	Horizontal < 0.1 ipm	Pass (if 1/4" & thicker)	Pass

OTHER LABORATORY TESTS

ASTM D-1692	Horizontal on Screen 1/8" Thickness	Burn Rate 5.5 in./min.	NBR 26 sec. 2.2 in.
UL94 for Foamed Plastics	Horizontal Ratings: HBF-SE < 1.5 ipm HF-1 NBR-0 Drips do not Ignite Cotton HF-2 NBR Drips Ignite Cotton	Not SE	94HF-1
ASTM E-94 Tunnel Test	Relative to Asbestos Red Oak	<u>1/8"</u> <u>1/2"</u>	
	Flame Spread	10 15	
	Fuel Contributed	20 30	
	Smoke Density	0 0	

This information on Volara irradiation crosslinked polyethylene foam is presented to our best knowledge. All test data are average values unless stated and should be considered as guidelines to the performance of this product and should not be used as specifications.