

# type LM

## Product Definition

Volara Type LM is a closed-cell polypropylene foam that is crosslinked by means of a unique electron irradiation process. This results in a continuous smooth surface foam material with a fine cell structure, excellent mechanical properties, and improved chemical resistance. Volara Type LM also exhibits good hardness and improved thermal stability properties. Standard colors are natural, black, and charcoal.

## Product Characteristics

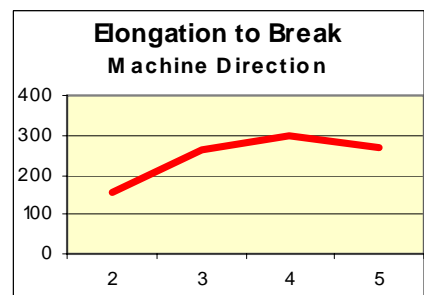
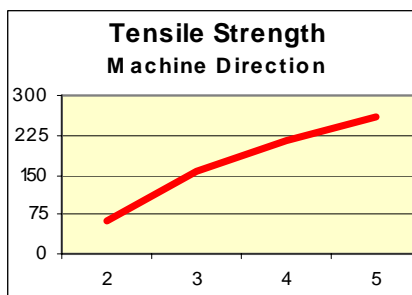
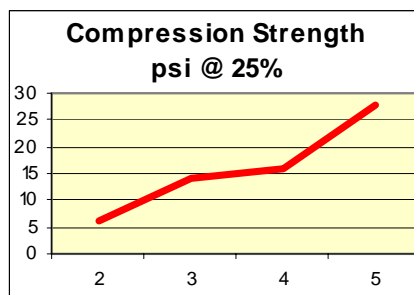
- Superior heat stability - up to 270° F
- Good mechanical properties at low densities
- Low water absorption and vapor transmission
- Excellent chemical resistance
- Smooth aesthetically pleasing surface

Volara Type LM can be laminated, embossed, thermoformed, die cut, sewn, printed, and pressure sensitive adhesive coated.

## Product Form

- Volara Type LM is produced in both roll and sheet form.
- Standard width is 60".
- Standard thicknesses are as follows:

Density	Thickness Range
2 pcf	Rolls: 1/8" to 5/16" Sheets: 3/8" to 1.5"
3 pcf	Rolls: 1/16" to 1/4"
4 pcf	Rolls: 1/16" to 3/16"
5 pcf	Rolls: 1/16" to 3/16"



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## Typical Properties of Volara Type LM

<u>Property</u>	<u>Units</u>	<u>Direction</u>	<u>2 pcf</u>	<u>4 pcf</u>	<u>6 pcf</u>	
Density 6.9	pcf	—	1.7-2.3	2.55-3.45	3.4-4.6	5.1-
Compression Strength (ASTM D3575)	psi @ 25%	—	6	14	16	28
	psi @ 50%	—	14	24	28	48
Tensile Strength (ASTM D3575)	psi	M	62	157	215	260
		CM	42	125	140	210
Elongation To Break (ASTM D3575)	%	M	153	260	300	270
		CM	110	240	220	230
Tear Resistance (ASTM D3575)	lbs/inch	M	14	25	31	45
		CM	21	30	42	54
Compression Set (ASTM D3575)	% of original thickness	—	26	25	24	24
Thermal Stability 3 hours @ 250°F	% maximum thickness	M	-2.1	-2.0	-1.7	-1.6
		CM	-1.7	-1.6	-1.3	-1.2
			-1.7	-1.7	-0.6	-0.4
Thermal Conductivity K Factor @ 70°F BTU/(hr)(ft <sup>2</sup> )(°F/in) R Factor - Thickness/K Factor		—	0.25	0.28	0.30	0.31
Water Absorption (ASTM D1667)	lbs/sq.ft. of cut surface	—	0.04	0.04	0.04	0.04

M = Machine direction  
CM = Cross-machine direction

- = Indicates shrinkage  
+ = Indicates expansion

Note: These materials are experimental and their physical properties are subject to change.

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.