

Physical Property & Performance Comparisons



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	EPE 1.3 lb	XLPE 2.0 lb	EPE 1.9 lb	XLPE 3.0 lb	EPE 2.3 lb	XLPE 4.0 lb
	ArPlank Expanded Polyethelyne (EPE)	Crosslinked Foam (XLPE)	ArPlank Expanded Polyethelyne (EPE)	Crosslinked Foam (XLPE)	ArPlank Expanded Polyethelyne (EPE)	Crosslinked Foam (XLPE)
Class A	$\bigcirc\!$	$\bigcirc\!$	$\bigcirc\!$	*	$\bigcirc\!$	$\bigcirc\!$
Recyclability	$\bigcirc\!$	※	\bigcirc	*	\checkmark	
Weight Savings	$\bigcirc\!$	※	\bigcirc	*	\checkmark	
36" drop curves	$\bigcirc\!$	※	\bigcirc	*	\checkmark	*
Low Concavity	$\bigcirc\!$	※	\bigcirc	*	\checkmark	*
WaterJet Cutting	$\bigcirc\!$	$\bigcirc\!$	\bigcirc	$\bigcirc\!$	\checkmark	$\bigcirc\!$
Compressive Deflection @ 25%	$\bigcirc\!$	$\bigcirc\!$	$\bigcirc\!$	*	\checkmark	(X)
Isotropic	$\bigcirc\!$	※	\bigcirc	×	\checkmark	*
Tear Strength	$\bigcirc\!$	※	\bigcirc	*	\checkmark	*
Chemical Resistance	$\bigcirc\!$	$\bigcirc\!$	\bigcirc	$\bigcirc\!$	\checkmark	\bigcirc

Glossary of Terms & Facts:

Class A – a pass/fail test for any visually exposed interior/exterior automotive painted part for surface defects. Painted parts must remain in the same condition as when originally produced.

Compression Defection - a measure of the hardness of a unicellular foam product. The test measures the force required to compress a material 25% of its original thickness.

Density – the mass divided by the volume typically measured in lbs./square foot. The mass or density of any foam material does not define its performance.

EPE Physical Expansion - solid LLDPE resin reacted in an inert gas batch process using very high pressure and temperatures to control cell expansion.

Isotropic - the ability to act uniformly in all orientations. A material's ability to manage energy impact and or compressive deflection equally from any angle.

Recyclability - EPE is a thermoplastics and is 100% recyclable and melt re-processable. All XLPE foams are thermosets which cannot be melt re-processed or recycled.

Resiliency/Cushion Curve - a test which determines the shock absorption properties of a foam. The lower the measured value, the higher the shock absorption properties.

Tear Strength - the ability of a piece of material to resist further propagation of a cut made in the foam sample.

XLPE Chemically Blown - a powdered chemical that is added to the foam matrix which, when exposed to high temperature, turns into a gas and causes the foam to expand.