



LIGHT WEIGHT

IMPACT RESISTANT

DURABLE

MOLD RESISTANT

CHEMICAL RESISTANT

RECYCLABLE

REUSABLE

MADE IN USA

MATERIAL SELECTION GUIDE									
FEATURES			LDPE	x-LDPE	Xomer (Base)	Xomer (ES, EES)	Polypropylene	Hybrid Foam	Medium Density PE
Resistant to Moisture			✓	✓	✓		✓	✓	✓
Anti-Static			✓	✓	✓	✓	✓		
Buoyant			✓	✓	✓		✓	✓	✓
Bio-based Formula Available			✓		✓	✓			✓
Structural							✓	✓	✓
Soft, Flexible					✓	✓			
High Operating Temperature							✓	✓	
Virtually Inert			✓	✓			✓		✓
Excellent Colorability			✓	✓	✓	✓	✓	✓	✓
APPLICATIONS									
Insulation			✓	✓	✓	✓	✓	✓	✓
Bedding and Furniture (Indoor/Outdoor)			✓		✓	✓	✓		
Construction			✓	✓		✓	✓	✓	
Protective Packaging			✓	✓	✓	✓	✓	✓	✓
Structural Components			✓		✓			✓	✓
Transportation			✓	✓	✓	✓			✓
Fitness and Recreation			✓	✓	✓	✓			
FOAM CHARACTERISTICS									
Density (lb/ft³)			1 to 10	1 to 10	1 to 10	1 to 3	1 to 10	1 to 10	1 to 10
Cell Size			0.3mm - to 3mm	0.3mm - to 3mm	0.3mm - to 3mm	0.3mm - to 3mm	1.0mm to 3mm	0.3mm - to 1.5mm	0.3mm - to 3mm
Closed Cell			✓	✓	✓		✓	✓	✓
Open Cell						✓			
FOAM PROPERTIES	UNIT	TEST METHOD							
Tensile Strength	psi	ASTM D412	28 to 104	28 to 104	35 to 50	35 to 50	40 to 150	42	35 to 120
Water Absorbtion	wt%	ASTM D3575	0%	0%	0%	500 to 2000%	0%	0%	0%
Compression Set	%	ASTM D3575 (@25%)	6 to 17%	6 to 17%	4 to 12%	4%	13 to 19%	10 to 20%	7 to 18%
Compression Strength	psi (@ 25% Strain)	ASTM D3574, D3575	5.0 to 62.0	5.0 to 62.0	1.5 to 7.0	0.5 to 1.0	10.0 to 150.0	6.0	8.0 to 80.0
Tear Resistance	lbs/in	ASTM D3574	2.5 to 11.0	2.5 to 11.0	4.0	4.0 (ES), 3.9 (EES)	2.8 to 4.3	2.0 to 5.0	2.0 to 9.0
UV Resistance (stabilized)			High	High	High	High	Medium	Medium	High
Tensile Elongation	%	ASTM D412	30 to 75%	30 to 75%	125%	125% (ES), 110% (EES)	10 to 40%	9%	20 to 50%
Hardness		O-scale Durometer	20 to 28	20 to 28	15 to 22	0 (ES), < 0 (EES)	40 to 60	25 to 32	22 to 30
Chemical Resistance (Relative)			High	High	High	High	High	Medium	High
Operating Temperature	Constant Term F		-100 °F. to +203 °F.	-100 °F. to +203 °F.	-100 °F. to +203 °F.	-100 °F. to +203 °F.	-100 °F. to +266 °F.	-100 °F. to 269 °F.	-100 °F. to +212 °F.
Air Permeability (Relative)		Modified ASTM D3574	None	None	None	Medium	None	None	None
Resilience	%	ASTM D3574	30 to 40%	30 to 40%	15 to 35%	5 to 20%	10 to 40%	5 to 25%	20 to 40%
Creep Resistance (Relative)			Medium	Medium	Low	Low	High	High	High
K-Value	BTU-in/hr-ft²-F		.25 to .35	.25 to .35	.25 to .35	.25 to .35	.25 to .35	.25 to .35	.25 to .35
Puncture Resistance	N (Force)	Nomaco Test	2 to 4	2 to 4	3 to 5	4 to 7	10 to 30	1 to 3	3 to 5
Flame Resistance	Flame Resistance	ASTM E-84 UL94, FMVSS302, CFR 1633	✓	✓	✓	✓	✓	✓	✓