

Recycled PET "07" Series Foam

PROPERTY	UNIT	Foam Data	STANDARD
Nominal Sheet Size	mm	1005/1220 x 2440	-
	Inches	39.5/48 x 96	-
Nominal Density	kg/m ³	115	ISO 845
	lb/ft ³	7.18	
Typical Density range	kg/m ³	110-120	ISO 845
	lb/ft ³	6.87-7.49	
Compression Strength	MPa	1.65	ASTM D1621
	Psi	239	
Compressive Modulus	MPa	105	ISO 844
	Psi	15,299	
Shear Strength 0°	MPa	0.97	ASTM C-273
	Psi	141	
Shear Modulus 0°	MPa	30	ASTM C-273
	Psi	4,351	
Shear Strength 90°	MPa	0.95	ASTM C-273
	Psi	138	
Shear Modulus 90°	MPa	27	ASTM C-273
	Psi	3,916	
Shear Elongation	%	13	ASTM C-273
Tensile Strength	MPa	2.02	ASTM D-1623
	Psi	293	
Tensile Modulus	MPa	116	ASTM D-1623
	Psi	16,825	

Continues

Reinforced PET Skins

aPET SKINS

PROPERTY	STANDARD	UNITS	200 SERIES	400 series
Resin	-	-	aPET	aPET
Fiber Content		wt%	58	58
Laminate Layers & Orientation			0/90	0/90/90/0
Areal Weight		lb/sf	0.18	0.36
		oz/sq.yd	26.01	52.01
		gsm	882	1763
Nominal Thickness		in	0.021	0.042
		mm	0.53	1.07
0 deg Testing Orientation	ASTM D790	ksi	-	3065
		GPa	-	21.1
	ASTM D790	ksi	-	73.1
		MPa	-	504
ASTM D3039	ksi	2350	2570	
	GPa	17.4	17.7	
ASTM D3039	ksi	55.3	54.2	
	MPa	381	374	
90 deg Testing Orientation	ASTM D790	ksi	-	813
		GPa	-	5.6
	ASTM D790	ksi	-	37
		MPa	-	255
ASTM D3039	ksi	2190	2150	
	GPa	15.1	14.8	
ASTM D3039	ksi	56	57.4	
	MPa	386	396	

Continues

PANEL COMPARISON

3/4" Thick Samples

	EDURA 207	EDURA 407	COOSA BW26	OKOUME MARINE PLY	VectorLam 1280
Weight (lb/sqft)	0.94	1.3	2	2.44	0.78
Water Absorption (%)	<1%	<1%	<1%	5-8%	<1%
R-Value (ft ² degF*h/BTU)	4.3/in	4.3/in	2-3/in	1/in	NL
Dimensionally Stable	Yes	Yes	Yes	No	Yes
Susceptible to Rot/Mold	No	No	No	Yes	No
Flexural Rigidity (lb-sqin)*	30,600	67,800	28,079.80	84,400- 126,600	19,288**
Flexural Modulus (psi)	290,133	640,948	266,238	800,237- 1,200,355	182,259
Stiffness to Weight Ratio (Stiffness/weight*106)	4.5	7.4	2	5-7.5	3.6
Screw Retention #10GRK thru (lbf)	101.1	198.5	181.1	>450	222.8
Finish Ready	Yes	Yes	No	No	No
Recycled Content	Yes	Yes	No	No	No

NL: Not Listed; Coosa, VectorLam and plywood data sourced from public manufacturer websites.

*Apparent Flexural Rigidity calculated using standard deflection equation for 4-point beam loading, assumptions were made for okoume plywood.

** The Apparent Flexural Rigidity was not available for VectorLam, Bending stiffness was used in its place.