

ALUMINIUM AND THERMOPLASTIC HONEYCOMBS, LAMINATES, SANDWICH PANELS

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Foam ΡΜΙ

PMI (polymethacrylimide) RS foam is specially developed for use as a structural core in connection with vacuum infusion processes. It is applied in components of aviation, aerospace, sports equipment with resininjection process to reduce the weight.

PMI core makes it possible to produce sandwich components in a single step (co-curing), resulting in reduced overall production time. It is highly suitable with autoclave technologies and vacuum infusion processes, including RTM (Resin Transfer Moulding) and VARTM (Vacuum Assisted Resin transfer moulding) processes.

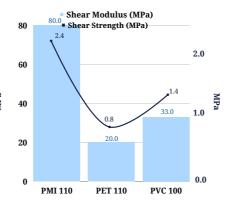
Its cell size is small, achieves an optimal compromise between low resin absorption and satisfactory bonding of the facings to the core.

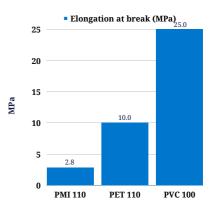
Tensile strength (MPa)							
Compressive strength (MPa) Pensile strength (MPa)		PMI 24	PMI 30	PMI 50	PMI 75	PMI 110	PMI 200
-	ISO845	24±3	30±3	50±5	75±7	110±10	200±15
Fensile strength (MPa) Elastic Modulus (MPa)	ISO844	0.25	0.40	0.85	1.70	3.60	9.50
Elastic Modulus (MPa)	ASTM D638	0.6	0.80	1.68	2.30	3.70	7.00
	ASTM D638	25	38	83	108	197	380
Elongation at break (MPa)	ASTM D638	2.8	2.4	2.6	2.8	2.8	3.0
Flexural strength (MPa)	ASTM D790	0.4	0.80	1.60	2.90	5.20	13.0
Shear strength (MPa)	ASTM C273	0.3	0.40	0.85	1.25	2.38	5.00
Shear modulus (MPa)	ASTM C273	12	15	30	48	80	160
Compressive creep (%)	GB/T 15048			≥2.0			1
Cemperature resistance (°C)	DIN 53424			≥200			
Size			2500x	1250 mm		2160x1100 mm	
		1.00 mm			1-100 mm		
Standard thickness range Thickness tolerance		1-60 mm	1-60 mm	1-120 mm ±0.2 mm	1-100 mm	1-90 mm	
All Processing and production	ll heat-treated sheets supp	supplied in 1/4 or 1/2 sheet si lied in sealed aluminum pac	kaging				
				d RTM processes o APa after heat tre		zed cell structure, v	where it can be used at
		gh precision, pre-					ndous manufacturing can also be supplied
	PMI 30 13 PMI 50 13 PMI 75 13	30 °C/0.1MPa/2h 30 °C/0.1MPa/2h 30 °C/0.3MPa/2h 50 °C/0.3MPa/2h 80 °C/0.3MPa/2h					
Comparison with PET and PVC foams							
	The densities c PMI 110 kg/m ³ PET 110 kg/m ³ PVC 100 kg/m ³		e following analys	sis are:			
	Compr	essive strength (M	IPa)			Tensile Strength (M	
	- compi	-				Tensile Moduľus (M	Pa)
	4 <u>3.6</u>				200 197.0		Pa) Pa) 4.0
	4 3.6				200 197.0		Pa) 4.0
	4				200 197.0		Pa)
	4 <u>3.6</u> 3		172		200 <u>197.0</u> 3.7 150		Pa) 4.0
	4 3.6	1.4	1.72	ŝ	200 <u>197.0</u> 3.7 150	120.0	Pa) 4.0 138.0 2.3
	4 <u>3.6</u> 3	1.4	1.72		200 <u>197.0</u> 3.7 150	120.0	Pa) 4.0
	4 3.6 3 3 2 2		1.72 PVC 100	ŝ	200 197.0 3.7 150 200 100	120.0 2.2	Pa) 4.0 138.0 2.3 2.0 Pa

further notice. We guarantee impeccable product quality under our terms of sale

CELCOMPONENTS







PET 110	PVC 100	PMI 110	PET 110	PVC 100	PMI 110
-	Cmpressive Strength (MPa)	+	-	Tensile Modulus/Strength (MPa)	+
PET 110	PVC 100	PMI 110	PMI 110	PET 110	PVC 100
-	Shear Modulus/Strength (MPa)	+	-	Elongation at break (MPa)	+

MECHANICAL PERFORMANCES	PMI 110	Test Method	PET 110	Test Method	PVC 100	Test Method
Density kg/m³	110	ISO845	110	ISO845	100	ASTM D1622
Compressive strength (MPa)	3.6	ISO844	1.4	ISO844	1.72	ASTM D1621 - 10
Tensile sttrength (MPa)	3.7	ASTM D638	2.2	ASTM C297	2.3	ASTM D1623
Tensile Modulus (MPa)	197	ASTM D638	120	ASTM C297	138	ASTM D1623
Elongation at break (MPa)	2.8	ASTM D638	10	ISO 1922	25	ASTM C273
Shear strength (MPa)	2.4	ASTM C273	0.8	ISO 1922	1.4	ASTM C273
Shear modulus (MPa)	80	ASTM C273	20	ISO 1922	33	ASTM C273
Temperature resistance (°C)	180	DIN 53424	100	DIN 53424	125	DIN 53424

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