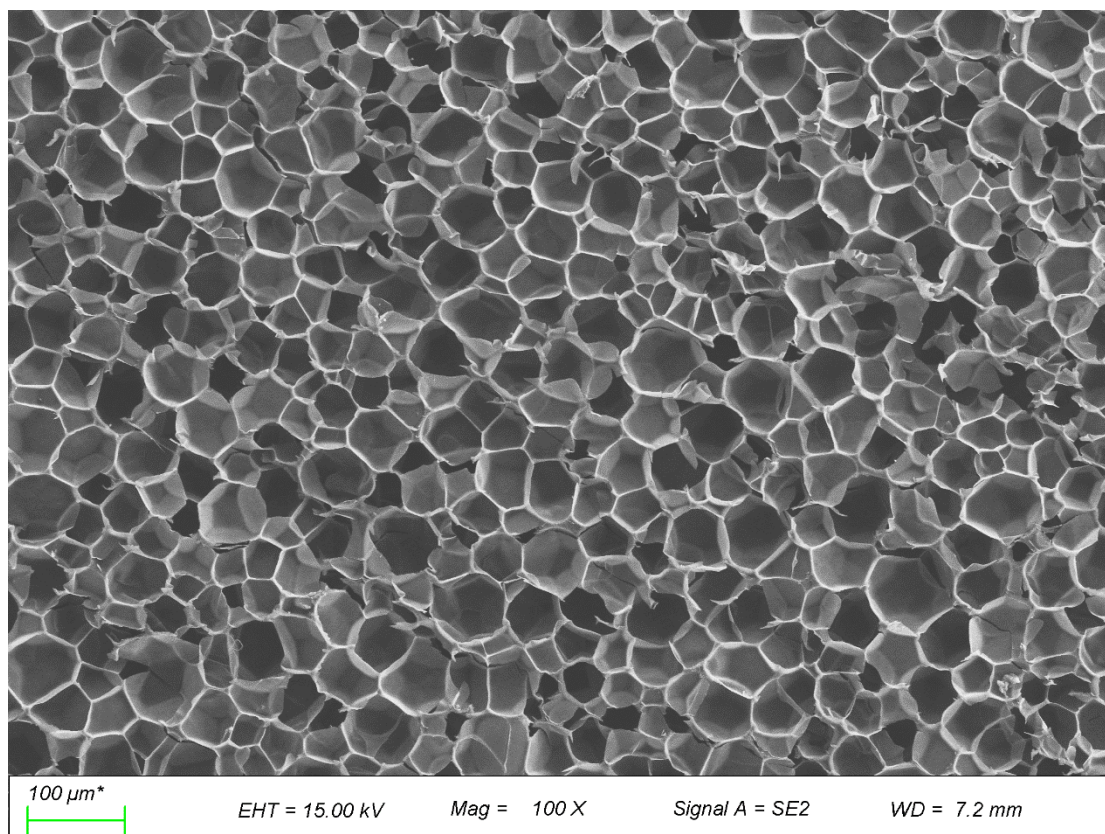


ARCHCELL® IR

ARCHCELL® is a closed-cell rigid PMI (Polymethacrylimide) foam, which used as the core of lightweight sandwich structure.



IR (Impact resistance) is a grade for impact resistance needs. The foam has improved elongation at break and is suitable for areas where surfaces such as aircraft wings, radomes, landing gear doors, etc. are susceptible to impact damage. While ensuring good impact resistance, this grade can also be compatible the process conditions of 180°C and 0.7 MPa. And it is suitable for various curing processes (autoclave, vacuum infusion, RTM, VARTM, VARI, HP-RTM, etc.). Also, it has good processability and can be easily thermoformed or CNC machined. The fine cell design of this grade and the closed cell structure of the foam ensure a good balance between peel strength and product weight when building sandwich structure parts.



TYPICAL PROPERTY VALUES

Properties	Unit	51 IR	71 IR	110 IR	200 IR	Standard
Density	kg/m ³	52	75	110	205	ISO 845
	lbs/ft ³	3.25	4.68	6.87	13.73	ASTM D1622
Compressive Strength	MPa	0.68	1.26	2.91	7.14	ISO 844
	psi	98.63	182.75	422.06	1035.57	ASTM D1621
Tensile Strength	MPa	1.93	3.59	5.68	12.32	ISO 527-2
	psi	279.92	520.69	823.81	1786.86	ASTM D638
Shear Strength	MPa	0.79	1.27	2.28	5.45	DIN 53294
	psi	114.58	184.20	330.69	790.46	ASTM C273
Elastic Modulus	MPa	70.9	114.7	196.9	388.7	ISO 527-2
	psi	10283.17	16635.82	28557.92	56376.15	ASTM D638
Shear Modulus	MPa	22.7	29.4	51.7	110.2	DIN 53294
	psi	3292.36	4264.11	7498.45	15983.15	ASTM C273
Elongation at Break	%	8	8	8	8	ISO 527-2 ASTM D638
HDT	°C	205.6	205.6	202.1	203.1	DIN 53424
	°F	462.08	462.08	395.78	397.58	

The above technical data are typical values at nominal densities

Sales Range

Grade	Size (mm)	Standard Sheet Thickness (mm)	Possible Sheet Thickness (mm)
51 IR	2900*1450	100	1-155mm
71 IR	2500*1250	80	1-140mm
110 IR	2160*1100	70	1-115mm
200 IR	1900*900	60	1-90mm

Thickness tolerance± (0.2mm)

Disclaimer

Our technical advice on the applications of our products is given without obligation.
The buyer is responsible for their use and processing, and is also liable for observing any third-party rights.
Technical data concerning our products are typical values. Subject to alteration.
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