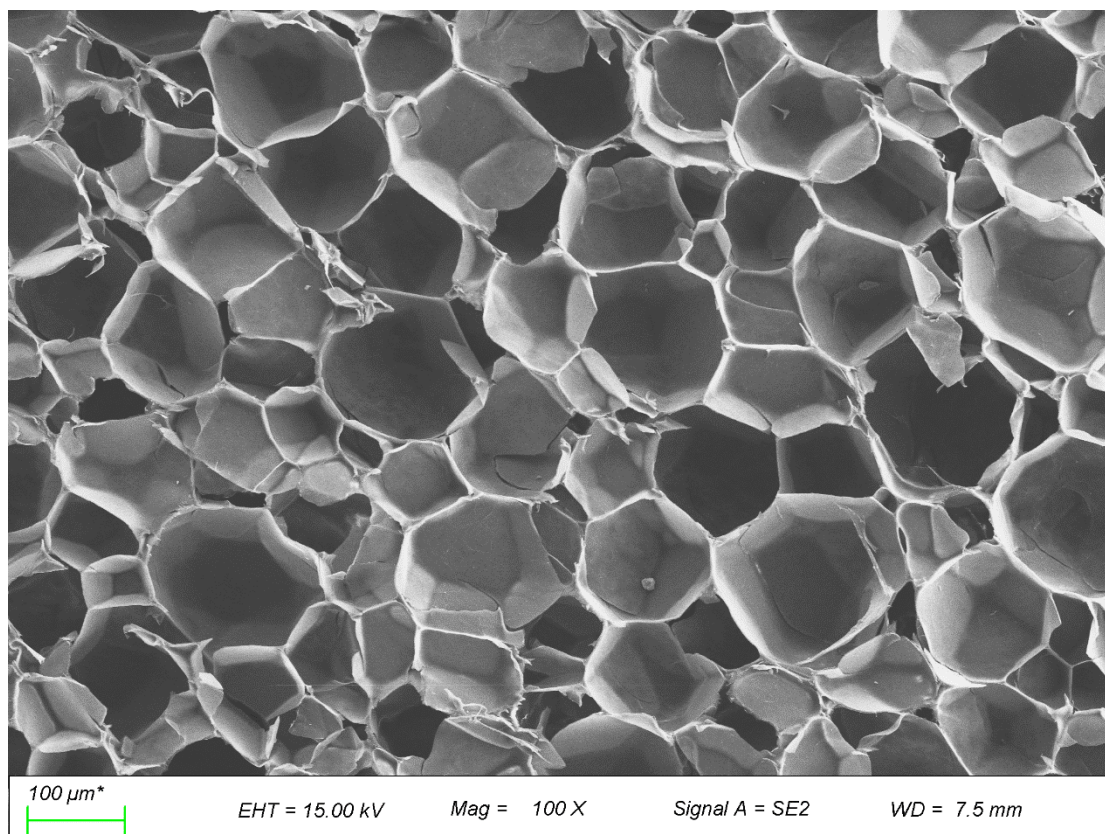


ARCHCELL® WA

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



WA (Wave absorption) is a grade suitable for wave absorption needs. By adding carbon wave absorbing material, it forms a foam with good dielectric properties and is capable of absorbing electromagnetic waves at radar frequencies. This grade retains the advantages of PMI foam and can be compatible with the process conditions of 180°C and 0.7 MPa. It is also 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 design of the holes in this grade and the closed cell structure of the foam ensures a good balance between peel strength and product weight when building sandwich structure parts.

TYPICAL PROPERTY VALUES

Properties	Unit	71 WA	110 WA	Standard
Density	kg/m ³	75	110	ISO 845



	lbs/ft3	4.68	6.87	ASTM D1622
Compressive Strength	MPa	1.7	3.6	ISO 844
	psi	246.5	522.0	ASTM D1621
Tensile Strength	MPa	2.2	3.7	ISO 527-2
	psi	319.0	536.5	ASTM D638
Shear Strength	MPa	1.4	2.1	DIN 53294
	psi	203.0	304.5	ASTM C273
Elastic Modulus	MPa	105	180	ISO 527-2
	psi	15225.0	26100.0	ASTM D638
Shear Modulus	MPa	42	63	DIN 53294
	psi	6090.0	9135.0	ASTM C273
Elongation at Break	%	4	4	ISO 527-2
				ASTM D638
HDT	°C	180.0	180.0	DIN 53424
	°F	356.0	356.0	

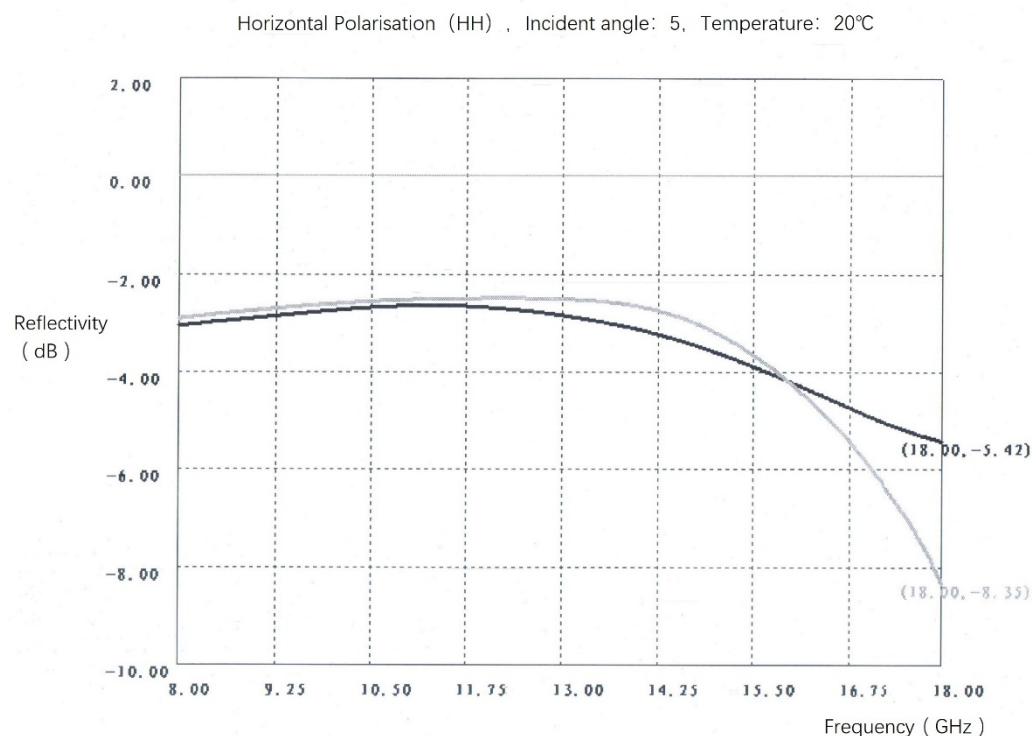
The above technical data are typical values at nominal densities

ARCHCELL ®WA wave absorption test

Standard: GJB 2038A

Test Frequency Range: 8-18GHz

Horizontal Polarisation (HH), Incident angle: 5



Frequency (GHz)	Reflectivity (dB)	Frequency (GHz)	Reflectivity (dB)	Frequency (GHz)	Reflectivity (dB)
8	-3.06	8.15	-3.03	8.3	-3.00
8.45	-2.98	8.6	-2.95	8.75	-2.93
8.9	-2.90	9.05	-2.88	9.2	-2.86
9.35	-2.83	9.5	-2.81	9.65	-2.79
9.8	-2.76	9.95	-2.74	10.1	-2.72
10.25	-2.70	10.4	-2.69	10.55	-2.67
10.7	-2.66	10.85	-2.65	11	-2.64
11.15	-2.64	11.3	-2.64	11.45	-2.64
11.6	-2.64	11.75	-2.65	11.9	-2.66
12.05	-2.68	12.2	-2.70	12.35	-2.72
12.5	-2.74	12.65	-2.77	12.8	-2.80
12.95	-2.83	13.1	-2.86	13.25	-2.90
13.4	-2.94	13.55	-2.98	13.7	-3.03
13.85	-3.08	14	-3.13	14.15	-3.19
14.3	-3.25	14.45	-3.31	14.6	-3.38
14.75	-3.45	14.9	-3.53	15.05	-3.61
15.2	-3.70	15.35	-3.79	15.5	-3.88
15.65	-3.98	15.8	-4.08	15.95	-4.18
16.1	-4.28	16.25	-4.39	16.4	-4.49
16.55	-4.60	16.7	-4.70	16.85	-4.80
17	-4.89	17.15	-4.98	17.3	-5.07
17.45	-5.15	17.6	-5.23	17.75	-5.31
17.9	-5.38				

Sales Range

Grade	Size (mm)	Standard Sheet Thickness (mm)	Possible Sheet Thickness (mm)
71 WA	2500*1250	80	1-140mm
150 WA	2000*1000	65	1-100mm

Thickness Tolerance $\pm$ (0.2mm) , others are available upon request

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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