ARCHCELL® MT

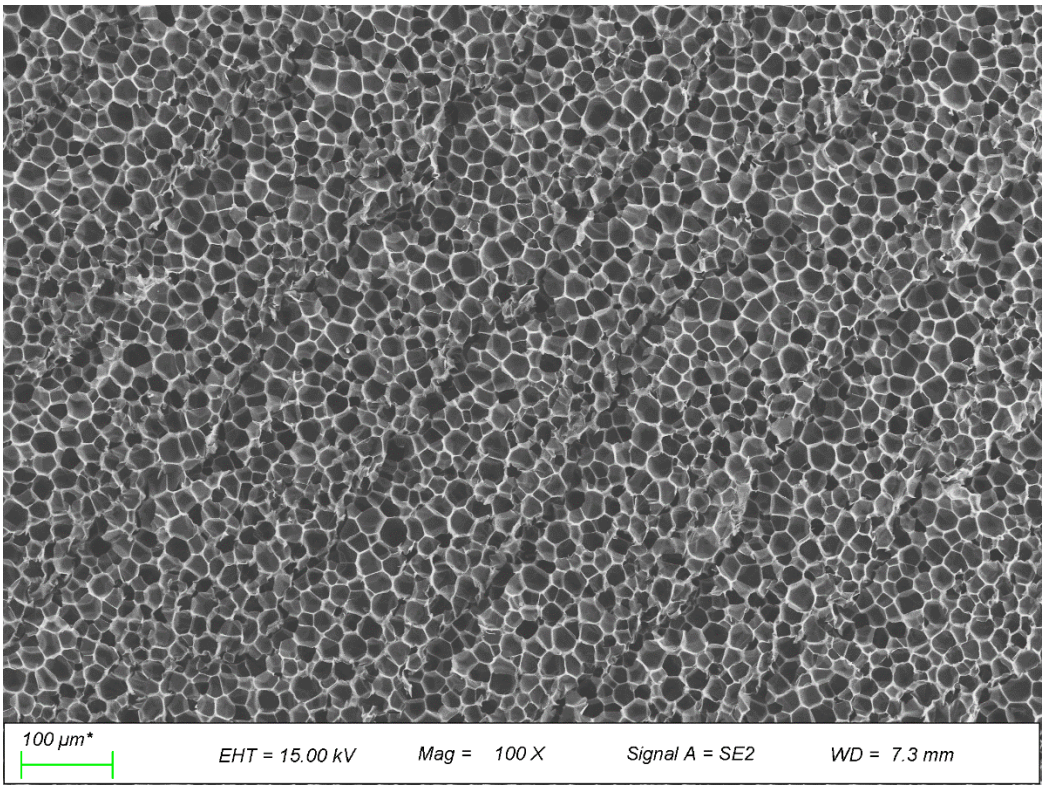
ARCHCELL® is a closed-cell rigid PMI (Polymethacrylimide) foam, which used as the core of lightweight sandwich structure.

MT(Medium Temperature) grade is suitable for middle temperature curing epoxy resin system and can be compatible with the process condition of 130℃ and 0.3MPa. It is suitable (based on density) for various curing processes (Autoclave, vacuum infusion, RTM, VARTM, VARI, HP-RTM, etc.). It also can be easily thermoformed or CNC machined. As a basic grade, this foam has universal applicability.

The cell size is an important specification of the foam material and determines the difference in the amount of curing resin absorbed during the foam processing. We have divided it according to the cell size in order to better fit the different processing processes.

TYPICAL PROPERTY VALUES

ARCHCELL® MT-FC

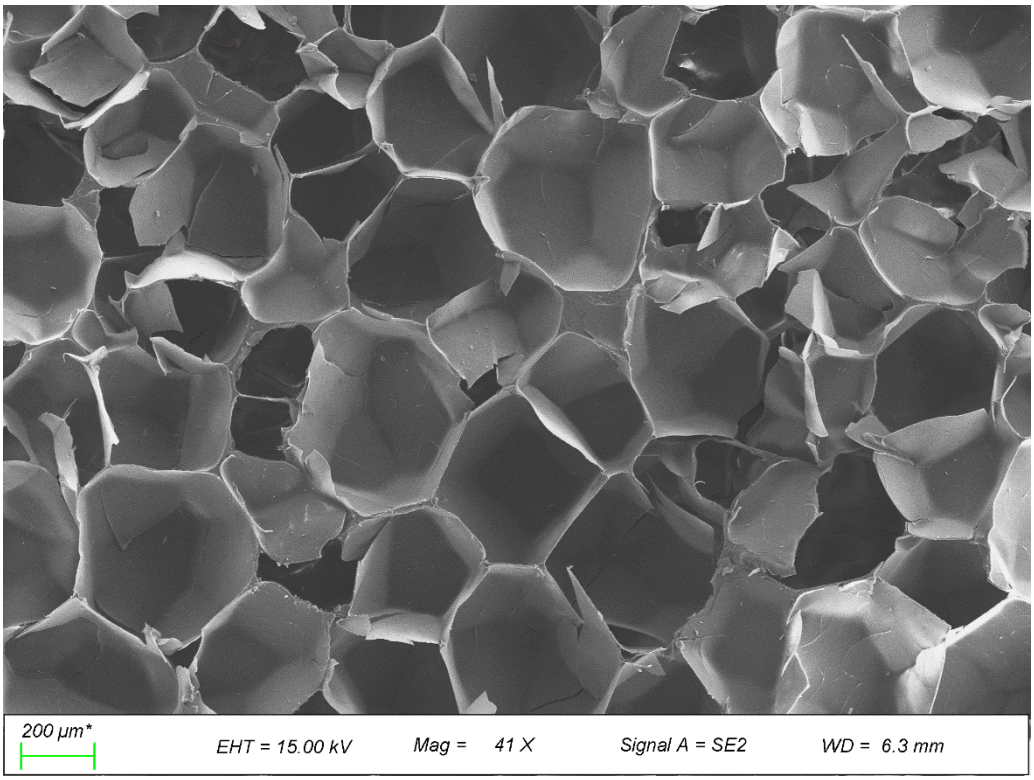


FC is a fine cell structure that guarantees a lowest curing resin absorption of up to 50g/m^2, thus reducing the weight of the final product, and is particularly suitable for vacuum infusion and RTM processes.

Properties	Unit	31 MT-FC	51 MT-FC	71 MT-FC	110 MT-FC	Standard
Density	kg/m^3 lbs/ft3	32 2	52 3.25	75 4.68	110 6.87	ISO 845 ASTM D1622
Compressive Strength	MPa psi	0.41 59.5	0.86 88.5	1.55 224.8	3.35 485.8	ISO 844 ASTM D1621
Tensile Strength	MPa psi	1.01 146.5	1.86 269.7	2.31 335.0	3.37 488.7	ISO 527-2 ASTM D638
Shear Strength	MPa psi	0.4 58.0	0.8 116.0	1.29 187.1	2.39 346.6	DIN 53294 ASTM C273
Elastic Modulus	MPa psi	33 4785.0	64.8 9396.0	90 13050.0	151.9 22025.5	ISO 527-2 ASTM D638
Shear Modulus	MPa psi	13.5 1957.5	22.2 3219	33.1 4799.5	56.9 8250.5	DIN 53294 ASTM C273
Elongation at Break	%	3	3	3	3	ISO 527-2 ASTM D638
HDT	℃ ℉	183.7 362.7	183.6 365.5	185.9 366.6	191.4 376.5	DIN 53424

The above technical data are typical values at nominal densities

ARCHCELL® MT-MC

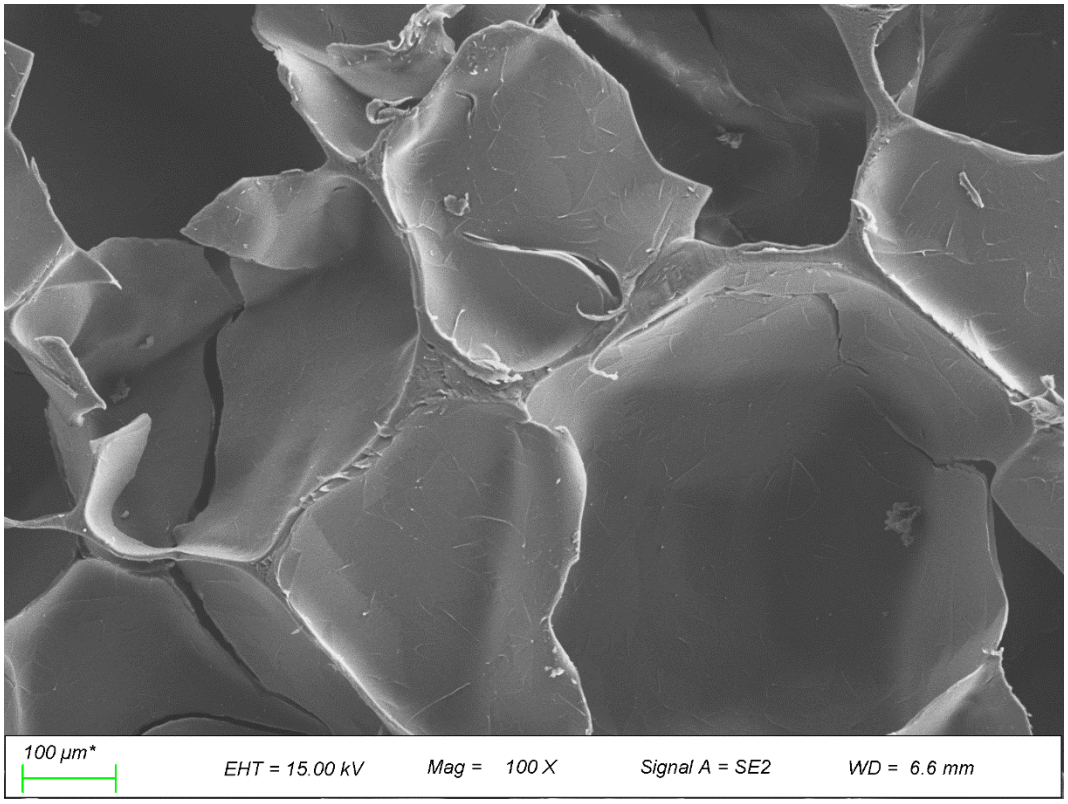


MC is a medium cell structure, which can get a good balance between peel strength and light weight requirements.

Properties	Unit	31 MT-MC	51 MT-MC	71 MT-MC	110 MT-MC	Standard
Density	kg/m^3 lbs/ft3	32 2	52 3.25	75 4.68	110 6.87	ISO 845 ASTM D1622
Compressive Strength	MPa psi	0.41 59.5	0.86 88.5	1.55 224.8	3.35 485.8	ISO 844 ASTM D1621
Tensile Strength	MPa psi	1.01 146.5	1.86 269.7	2.31 335.0	3.37 488.7	ISO 527-2 ASTM D638
Shear Strength	MPa psi	0.4 58	0.8 116	1.29 187.05	2.39 346.55	DIN 53294 ASTM C273
Elastic Modulus	MPa psi	33 4785.0	64.8 9396.0	90 13050.0	151.9 22025.5	ISO 527-2 ASTM D638
Shear Modulus	MPa psi	13.5 1957.5	22.2 3219.0	33.1 4799.5	56.9 8250.5	DIN 53294 ASTM C273
Elongation at Break	%	3	3	3	3	ISO 527-2 ASTM D638
HDT	℃ ℉	183.7 362.7	183.6 365.5	185.9 366.6	191.4 376.5	DIN 53424

The above technical data are typical values at nominal densities

ARCHCELL® MT-CC



CC is a coarse cell structure with the highest adhesive absorption and the best peel strength.

Properties	Unit	31 MT-CC	51 MT-CC	71 MT-CC	110 MT-CC	Standard
Density	kg/m^3 lbs/ft3	32 2	52 3.25	75 4.68	110 6.87	ISO 845 ASTM D1622
Compressive Strength	MPa psi	0.41 59.5	0.86 88.5	1.55 224.8	3.35 485.8	ISO 844 ASTM D1621
Tensile Strength	MPa psi	1.01 146.5	1.86 269.7	2.31 335.0	3.37 488.7	ISO 527-2 ASTM D638
Shear Strength	MPa psi	0.4 58.0	0.8 116.0	1.29 187.1	2.39 346.6	DIN 53294 ASTM C273
Elastic Modulus	MPa psi	33 4785.0	64.8 9396.0	90 13050.0	151.9 22025.5	ISO 527-2 ASTM D638
Shear Modulus	MPa psi	13.5 1957.5	22.2 3219	33.1 4799.5	56.9 8250.5	DIN 53294 ASTM C273
Elongation at Break	%	3	3	3	3	ISO 527-2 ASTM D638
HDT	℃ °F	183.7 362.7	183.6 365.5	185.9 366.6	191.4 376.5	DIN 53424

The above technical data are typical values at nominal densities

Sales Range

Grade	Size (mm)	Standard Sheet Thickness (mm)	Possible Sheet Thickness (mm)
31 MT	2500*1250	110	1-185mm
51 MT	2500*1250	90	1-155mm
71 MT	2500*1250	80	1-140mm
110 MT	2160*1100	70	1-115mm

Thickness tolerance± （0.5mm）, 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.
ARCHCELL® is a registered trademark of ARCH Industrial (HK) Limited.