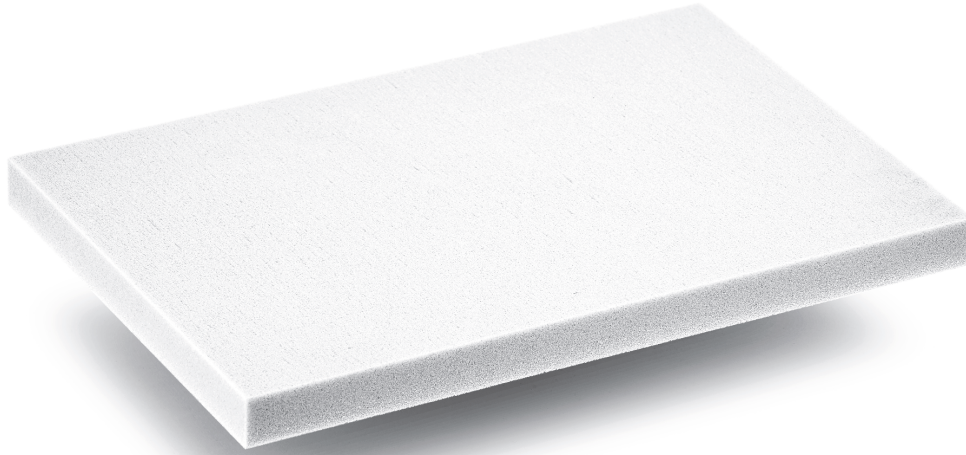


PMI



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 resin injection 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.

Processing and production

PMI is especially suitable for vacuum infusion and RTM processes due to its optimized cell structure, where it can be used at temperature up to 180°C with pressure up to 0.7 MPa after heat treatment.

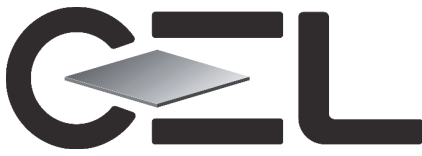
Thermoforming and shaping

PMI can be easily thermoformed or CNC machined to meet customers' requirements, bringing tremendous manufacturing advantages.

High precision, pre-shaped and ready-to-use foam cores in complex or simple geometries can also be supplied by the Machining Department.

Mechanical performance

| Type | Test Method | Units | PMI 24 | PMI 30 | PMI 50 | PMI 75 | PMI 110 | PMI 200 | |
|------------------------|-------------|-------------------|--------|--------|--------|--------|---------|---------|--|
| Density | ISO845 | Kg/m ³ | 24±3 | 30±3 | 50±5 | 75±7 | 110±10 | 200±15 | |
| Compressive Strength | ISO844 | MPa | 0.25 | 0.40 | 0.85 | 1.70 | 3.60 | 9.50 | |
| Tensile Strength | ASTM D638 | MPa | 0.6 | 0.80 | 1.68 | 2.30 | 3.70 | 7.00 | |
| Elastic Modulus | ASTM D638 | MPa | 25 | 38 | 83 | 108 | 197 | 380 | |
| Elongation At break | ASTM D638 | % | 2.8 | 2.4 | 2.6 | 2.8 | 2.8 | 3.0 | |
| Flexural Strength | ASTM D790 | MPa | 0.4 | 0.80 | 1.60 | 2.90 | 5.20 | 13.0 | |
| Shear Strength | ASTM C273 | MPa | 0.3 | 0.40 | 0.85 | 1.25 | 2.38 | 5.00 | |
| Shear Modulus | ASTM C273 | MPa | 12 | 15 | 30 | 48 | 80 | 160 | |
| Compressive Creep | GB/T 15048 | % | ≅ 2.0 | | | | | / | |
| Temperature Resistance | DIN 53424 | °C | ≅ 200 | | | | | | |



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ALUMINIUM AND THERMOPLASTIC HONEYCOMBS, LAMINATES, SANDWICH PANELS

ENG

Compressive creep testing conditions:

| | |
|---------|------------------|
| PMI 24 | 130 °C/0.1MPa/2h |
| PMI 30 | 130 °C/0.1MPa/2h |
| PMI 50 | 130 °C/0.3MPa/2h |
| PMI 75 | 150 °C/0.3MPa/2h |
| PMI 110 | 180 °C/0.3MPa/2h |

Note: Technical data of our products are typical values for the nominal density.

PRODUCT SPECIFICATION

| PMI | Size [mm] | Standard Thickness Range [mm] | Thickness Tolerance [mm] |
|-----|-----------|-------------------------------|--------------------------|
| 24 | 2500x1250 | 1-60 | ±0.2 |
| 30 | 2500x1250 | 1-60 | ±0.2 |
| 50 | 2500x1250 | 1-120 | ±0.2 |
| 75 | 2500x1250 | 1-100 | ±0.2 |
| 110 | 2160x1100 | 1-90 | ±0.2 |

Note: 1-4mm thick sheet is supplied in 1/4 or 1/2 sheet size.

All heat-treated sheets supplied in sealed aluminum packaging.

PMI foam cores
 Last Revised: 03/24_Rev.1



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