



Product Data Sheet

TEAMFOAM-F Series

TEAMFOAM-F Series Core Material

TEAMFOAM-F is a cross-linked rigid foam material based on poly(methacrylimide). Its molecular backbone consists of carbon-carbon chains, with imide structures in the side chains. The high-performance matrix material and the uniform fine-cell structure endow PMI foam with excellent structural stability and outstanding mechanical properties. At comparable densities, PMI foam is the highest-performing core material.

The TEAMFOAM-F series foam exhibits performance characteristics such as high specific strength, high specific modulus, high temperature resistance, fatigue resistance, and low dielectric properties. It is widely used in aerospace, military radar, high-speed rail and urban rail transit, ships and yachts, automotive manufacturing, sports equipment, medical devices, and acoustic products.

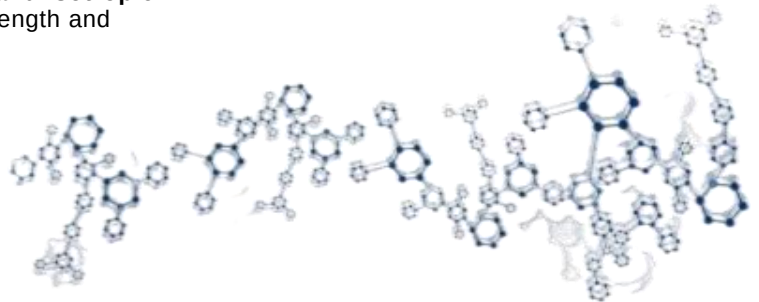
TEAMFOAM-F Performances

Types	Standard	Unit	Result	F32	F52	F75	F110
Density	ISO 845	kg/m ³	Average	32	52	75	110
			range	±7	±12	±15	±21
Compression strength	ISO 844:2006	MPa	Average	0.43	1.03	1.84	3.31
Compression modulus	ISO 844:2006	MPa	Average	12.5	42.4	76.3	118.6
Shear strength	ASTM C273:2012	MPa	Average	0.42	0.78	1.33	2.56
Shear modulus	ASTM C273:2012	MPa	Average	11.6	21.3	37.3	53.4
Tensile strength	ASTM D638	MPa	Average	1.11	1.86	2.73	4.08
Tensile modulus	ASTM D638	MPa	Average	36.4	69.6	114.6	148.7

Note: The above data taken from routine production tests are the average results of various products.

TEAMFOAM-F Features

- **Excellent comprehensive mechanical properties and isotropic.**
At the same density, PMI foam offers the highest strength and stiffness among common core materials.
- **100% closed-cell structure** with small, uniform cell size and low resin absorption, significantly reducing component weight.
- **High temperature resistance**, PMI foam's high thermal deformation temperature is suitable for a variety of forming processes including autoclaves, reducing curing time and improving customer productivity.
- **Excellent resin compatibility** with various resin systems.
- **Thermoformable**, enabling flexible designs across diverse applications.
- **High fatigue resistance**, suitable for high dynamic load sandwich structures.
- **Very low CTE**, good dielectric properties, and radiographic translucency.



TEAMFOAM-F Technical Character

Type	Standard	Unit	F32	F52	F75	F110
Thermal conductivity	EN 12667	W/(m-K)	0.029	0.030	0.032	0.035
Distortion temperature	DIN 53424	°C	190	190	190	190
Dissipation factor	ASTM D 2520	/	0.0002	0.0003	0.0005	0.0007
Permittivity	ASTM D 2520	/	1.03	1.05	1.08	1.11

* **Note:** The above data taken from routine production tests are the average results of various products.

For design use under high temperature and continuous load conditions, please contact technical services for detailed design instructions.

The maximum processing temperature depends on time, pressure and process conditions. It is therefore recommended that the user contact the technical services department to confirm the compatibility of the specific handling parameters of the TEAMFOAM-F series foam.

TEAMFOAM-F Specification

Type	Standard	Unit	F32	F52	F75	F110
BLOCK	Length	mm	2500	2500	2500	2250
	Width	mm	1250	1250	1250	1150
	Thickness	mm	120	105	90	80
Profile Plate	Length	mm	1250	1250	1250	1125
	Width	mm	1250	1250	1250	1150
	Thickness	mm	5-65	5-65	5-65	5-65
Plain	Thickness	mm	1-120	1-105	1-90	1-80

***Note:** The above data is based on the measurement results of the current production of existing products. Contact the technical service department to get the latest data.

TEAMFOAM-F Application Fields



Disclaimer:

This data sheet may be revised and updated due to the development and modification of materials. The data presented herein are derived from test trials. If not indicated as minimum values, the data are average values. Actual results should be verified through actual tests. The data provided by the company are for reference only. The company assumes no responsibility and makes no warranties or representations regarding the materials or their use. The company reserves the right to issue new replacement data sheets.

