

## HyboFOAM® F

### Introduction

HyboFOAM® F is a closed-cell rigid foam based on polymethacrylimide (PMI), which contains no halogen at all. The cell size is tiny and uniform.

### Processing and production

HyboFOAM® F can withstand a medium temperature curing process with a maximum temperature of 180 °C and a maximum pressure of 0.3 MPa, depending on the density. Suitable for curing methods such as autoclave, vacuum bag, RTM, VARTM, VARI, HP-RTM, etc.

### Application

Due to its extremely fine pore size, low resin absorption rate, low density, HyboFOAM® F is mainly used for buoyancy materials and diaphragm materials, with typical applications such as fish float and earphone diaphragm.

### Thermoforming and Shaping

To meet different dimension parts and geometry, it is very easy to shape HyboFOAM® F by bonding by various adhesive, and common CNC machine.

HYBO can also directly provide high-precision preformed or ready to use foam core materials with complex or simple geometric shapes.

Property	Test Method *	Unit	HyboFOAM® F 30	HyboFOAM® F-35	HyboFOAM® F 40	HyboFOAM® F 52	HyboFOAM® F 75	HyboFOAM® F 110
Density	GB/T 6343	kg/m <sup>3</sup>	30	35	40	52	75	110
	ASTM D1622	g/cm <sup>3</sup>	0.03	0.035	0.04	0.052	0.075	0.11
	ISO 845	lb/ft <sup>3</sup>	1.87	2.18	2.50	3.25	4.68	6.87
Compressive Strength	GB/T 8810	MPa	0.4	0.6	0.8	0.9	1.5	3.6
	ASTM D1621	psi	58	87	116	131	218	522
Compressive Modulus	D1621	MPa	10	20	30	40	75	120
	ISO 844	psi	1450	2900	4350	5800	10875	17400
Tensile Strength	GB/T 1040.2	MPa	0.75	0.8	0.9	1.9	2.8	3.7
		psi	109	116	131	276	406	537
Tensile Modulus	ASTM D638	MPa	35	40	50	68	90	170
		psi	5075	5800	7250	9860	13050	24650
Elongation at Break	ISO 527-2	%	4	4	4	4	4	4
Shear Strength	GB/T 1455	MPa	0.4	0.45	0.55	0.7	1.18	2.23
		psi	58	65	80	102	171	323
Shear Modulus	ASTM C273	MPa	12	13	15	20	23	60
		psi	1740	1885	2175	2900	3335	8700
Heat Deflection Temperature	GB/T 31295 DIN 53424	°C	≥180					

The above values are typical values for nominal density, and the measured values will vary due to manufacturing deviations. \* Data is based on ASTM standard test methods, but GB or ISO values can be confirmed upon request.

## For More Information

If you have questions or want to discuss the use of **HyboFOAM® F** in your application, we recommend that you communicate with your local contacts.

Please visit [www.hybofoam.com](http://www.hybofoam.com), find and contact the local contact person directly by phone or email.

## Disclaimer

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## Contact Information

HYBO (Fujian) New Material Technology Ltd.,  
Add: Quanzhou Comprehensive Bonded Zone,  
Fujian, China.  
Tel: 86-0595-82029999  
Fax: 86-0595-85775222  
Web: [www.hybofoam.com](http://www.hybofoam.com)  
E-mail: [info@hybotech.com](mailto:info@hybotech.com)