

HyboFOAM® TE

Introduction

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

HyboFOAM® TE is very suitable for resin liquid forming processes.

Application

HyboFOAM® TE has fine cell size, low resin absorption, and can be firmly connected to the panel layer. The closed cell structure ensures that the resin is at the required bonding interface, making it very suitable for use in fiber reinforced plastic (FRP) sandwich structural thin plates.

Processing and production

HyboFOAM® TE can withstand a medium temperature curing process with a maximum temperature of 180 °C and a maximum pressure of 0.7 MPa, depending on the density. Suitable for curing methods such as autoclave, vacuum bag, RTM, VARTM, VARI, HP-RTM, etc.

Thermoforming and Shaping

To meet different dimension parts and geometry, it is very easy to shape HyboFOAM® TE by thermo-shaping, 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® TE 75	HyboFOAM® TE 110	HyboFOAM® TE 200
Density	GB/T 6343	kg/m ³	75	110	200
	ASTM D1622	g/cm ³	0.075	0.11	0.2
	ISO 845	lb/ft ³	4.68	6.87	12.48
Compressive Strength	GB/T 8813	MPa	1.7	3.2	9
Compressive Modulus	ASTM D1621	psi	247	464	1305
	ISO 844	MPa	75	120	300
Tensile Strength	GB/T 1040.2	psi	10875	17400	43500
		MPa	2.8	4.2	8
		psi	406	609	1160
Tensile Modulus	ASTM D638	MPa	110	150	260
	ISO 527-2	psi	15950	21750	37700
Elongation at Break		%	5	5	5
Shear Strength	GB/T 1455	MPa	1.3	2.4	4.6
	ASTM C273	psi	189	348	664
Shear Modulus	DIN 53294	MPa	35	50	100
		psi	5075	7250	14544
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® TE** in your application, we recommend that you communicate with your local contacts.

Please visit www.hybofoam.com, find and contact the local contact person directly by phone or email.

Disclaimer

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