

HyboFOAM® E

Introduction

HyboFOAM® E 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® E 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.

Due to its excellent surface resin absorption, engineers can find a perfect balance between peel strength and lightweight requirements.

Application

The application of HyboFOAM® E is pretty wide. Basically, due to unique density distribution and excellent dielectrics property, it is often used in radome, antenna, electronic, and acoustic equipment.

Thermoforming and Shaping

To meet different dimension parts and geometry, it is very easy to shape HyboFOAM® E 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® E-32	HyboFOAM® E 52	HyboFOAM® E 75	HyboFOAM® E 110
Density	GB/T 6343	kg/m ³	32	52	75	110
	ASTM D1622	g/cm ³	0.032	0.052	0.075	0.11
	ISO 845	lb/ft ³	2.00	3.25	4.68	6.87
Compressive Strength	GB/T 8813	MPa	0.4	0.9	1.5	3.6
Compressive Modulus	ASTM D1621	psi	58	131	218	522
	ISO 844	MPa	12	40	75	120
Tensile Strength	GB/T 1040.2	psi	1740	5800	10875	17400
		MPa	1	1.9	2.8	3.7
Tensile Modulus	ASTM D638	MPa	145	276	406	537
Elongation at Break	ISO 527-2	psi	35	68	90	170
		%	5075	9860	13050	24650
Shear Strength	GB/T 1455	MPa	4	4	4	4
		psi	0.35	0.7	1.18	2.23
Shear Modulus	ASTM G273	MPa	51	102	171	323
		psi	12	20	23	60
Heat Deflection Temperature	DIN 53294	MPa	1740	2900	3335	8700
		°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® E** 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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