

## Production Information

## 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 52	HyboFOAM® E 75	HyboFOAM® E 110
Density	GB/T 6343	kg/m <sup>3</sup>	52	75	110
	ASTM D1622	g/cm <sup>3</sup>	0.052	0.075	0.11
	ISO 845	lb/ft <sup>3</sup>	3.24	4.68	6.86
Compressive Strength	GB/T 8810	MPa	0.9	1.5	3.6
Compressive Modulus	ASTM D1621 ISO 844	psi	131	218	522
		MPa	40	75	120
Tensile Strength	GB/T 1040.2 ASTM D638 ISO 527-2	psi	5800	10875	17400
		MPa	1.9	2.8	3.7
		psi	276	406	537
Tensile Modulus	ASTM D638 ISO 527-2	MPa	68	90	170
Elongation at Break		psi	9860	13050	24650
Shear Strength	GB/T 1455 ASTM G273 DIN 53294	%	4	4	4
		MPa	0.7	1.18	2.23
		psi	102	171	323
Shear Modulus	DIN 53294	MPa	20	23	60
		psi	2900	3335	8700

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.