

Production Information

HyboCORE® T

Introduction

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

Processing and production

HyboCORE® T can withstand a medium temperature curing process with a maximum temperature of 150 °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.

The cost of HyboCORE® T is very advantageous, and it is at the same level as the PVC foam core material. Without affecting material costs, customers can adopt higher curing temperatures and faster curing speeds to reduce process and manufacturing cost.

Application

The application of HyboCORE® T is pretty wide. Basically, it is suitable for most of sandwich structure composites parts, including X-Ray/CT tables, sports equipment; vehicle/high speed railway, and floating/fishing kits, etc.

Thermoforming and Shaping

To meet different dimension parts and geometry, it is very easy to shape HyboCORE® T 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	HyboCORE® T 50	HyboCORE® T 60	HyboCORE® T 80	HyboCORE® T 110	HyboCORE® T 150
Density	GB/T 6343	kg/m ³	50	60	80	110	150
	ASTM D1622	g/cm ³	0.05	0.06	0.08	0.11	0.15
	ISO 845	lb/ft ³	3.12	3.75	4.99	6.87	9.36
Compressive Strength	GB/T 8810	MPa	0.9	1.2	2	3.5	5
	ASTM D1621	psi	131	174	290	508	725
Compressive Modulus	ISO 844	MPa	35	50	75	130	200
		psi	5075	7250	10875	18850	29000
Tensile Strength	GB/T 1040.2	MPa	1.6	2.1	3.1	4.5	5.2
		psi	232	305	450	653	754
Tensile Modulus	ASTM D638 ISO 527-2	MPa	55	70	100	140	200
		psi	7975	10150	14500	20300	29000
Elongation at Break		%	6	6	6	6	6
Shear Strength	GB/T 1455 ASTM C273	MPa	0.8	1	1.6	2.5	3.4
		psi	116	145	232	363	493
Shear Modulus	DIN 53294	MPa	18	26	40	60	80
		psi	2610	3770	5800	8700	11600
Heat Deflection Temperature	GB/T 31295	°C	≥170	≥165			≥160
	DIN 53424						

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 **HyboCORE® T** 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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