VICELL ™ PMI foam, a kind of closed-cell rigid foam plastic, is first researched and developed by us in China. The products, compared with other polymeric foams under the same density, are the best ones with outstanding mechanical properties of greatest tensile modulus, shear modulus and strength.

VICELL ™ PMI foam plastic, with good property in being processed, can be processed into a variety of complex surfaces and shapes by methods of hot molding and machining;

VICELL ™ PMI foam has good adhesive performance, which can be used to make bonding interface with good properties by adhesives such as epoxy resin, unsaturated polyester resin, double maleic imide resin, cyanate ester resin etc.;

VICELL ™ PMI products of specific models will be able to achieve co-curing with panels under the condition of 180℃ and pressure of autoclave.

VICELL ™ PMI foam contains no any chlorofluorocarbons and poisons.

Major features

- One hundred percent closed cell foam and isotropous.
- Compatible with various resins (including prepreg).
- High distortion temperature.
- High strength-weight ratio. PMI foam possesses the highest specific strength and modulus among all kinds of polymer foams in the world.
- High fatigue resistance. When taking fatigue loading, PMI foam shows little differences in properties of modulus, strength and other performances.

Vicell P

property	test standard	unit	value	P40	P60	P80	P100	P130	P200
density	ISO 845	Kg/m^3	mean value	**40**	**60**	**80**	**100**	**130**	**200**
			interval	**35-50**	**51-70**	**71-90**	**91-115**	**116-150**	**180-225**
compression strength	ASTM D1621	MPa	mean value	**0.70**	**1.10**	**1.70**	**2.40**	**3.50**	**5.30**
			minimum value	**0.50**	**1.00**	**1.50**	**2.20**	**3.00**	**4.80**
tensile strength	ASTM D638	MPa	mean value	**1.50**	**1.90**	**2.80**	**3.90**	**5.00**	**7.00**
			minimum value	**1.30**	**1.60**	**2.30**	**3.00**	**4.00**	**6.00**
tensile modulus	ASTM D638	MPa	mean value	**50**	**70**	**100**	**125**	**140**	**200**
			minimum value	**45**	**55**	**85**	**110**	**120**	**180**
shear strength	ASTM C273	MPa	mean value	**0.70**	**0.90**	**1.30**	**1.70**	**2.40**	**3.70**
			minimum value	**0.60**	**0.80**	**1.00**	**1.50**	**2.00**	**3.30**
shear modulus	ASTM C273	MPa	mean value	**18**	**25**	**35**	**45**	**60**	**90**
			minimum value	**7**	**22**	**30**	**40**	**50**	**80**

Vicell PH

property	test standard	unit	value	PH45	PH60	PH80	PH100	PH130
density	ISO 845	Kg/m^3	mean value	**45**	**60**	**80**	**100**	**130**
			interval	**35-50**	**51-70**	**71-90**	**91-115**	**116-150**
compression strength	ASTM D1621	MPa	mean value	**0.90**	**1.30**	**1.90**	**2.70**	**3.80**
			minimum value	**0.60**	**1.20**	**1.70**	**2.40**	**3.30**
tensile strength	ASTM D638	MPa	mean value	**1.60**	**2.10**	**3.20**	**4.50**	**6.00**
			minimum value	**1.30**	**2.00**	**3.00**	**4.00**	**4.50**
tensile modulus	ASTM D638	MPa	mean value	**60**	**85**	**120**	**130**	**160**
			minimum value	**50**	**70**	**110**	**120**	**130**
shear strength	ASTM C273	MPa	mean value	**0.70**	**1.10**	**1.35**	**1.80**	**2.50**
			minimum value	**0.60**	**1.00**	**1.10**	**1.60**	**2.10**
shear modulus	ASTM C273	MPa	mean value	**20**	**30**	**45**	**60**	**85**
			minimum value	**10**	**25**	**34**	**50**	**60**