Preliminary Product Information ZOUCHefoam IXPE 20 FR

Description

ZOUCHefoam IXPE 20 FR is a low density physically cross-linked, closed-cell polyethylene foam with a flame retardant additive, manufactured using a unique production process. Available in sheet form and can be thermoformed into shapes.

Application

The foam is appropriate for many critical sealing, insulation, protecting, packaging and soft storing applications and is unaffected by UV radiation. It is used extensively in aerospace, civil, business and military aviation where fire behaviour is key and certain criteria and specifications need to be met. It has closed cell structure, giving low water absorption and low water vapour permeability, excellent insulation characteristics and good durability, allowing both long life and flexibility when fabricating parts.

Property	Indicative Value	Unit	Test Standard
Density skin/skin	45	kg/m³	BS ISO 7214 1998
Cell size	0.4	mm	-
Compressive Strength 10% compression 25% compression 40% compression 50% compression	 69 86 121 159	 kPa kPa kPa kPa	BS ISO 7214 1998
Compression Set 23°C, 22 h charge, compression 25% 0.5h after discharge 24h after discharge 23°C, 22 h charge, compression 50% 0.5h after discharge 24h after discharge	 8.5 2.5 20 11	 % % % %	25mm cell-cell BS ISO 7214 1998
Tensile strength Tensile elongation	435 180	kPa %	ISO 7214 1998
Tear Strength	1200	N/m	BS EN ISO 8067 1995
Shore hardness 00 Scale 10mm cell/cell thickness	60	00	ISO 868 1985
Recommended operating temperature range	+105/-70	˚C	-
Thermal conductivity mean temp of 10˚C	0.043	W/m.K	ISO 8302 1991

* The maximum operating temperature shown is defined as the temperature which will typically cause a linear shrinkage of 5% after a 24hr exposure period, using sample dimensions of 100mm x 100mm x 25mm. This figure is provided for general guidance only. The actual level of shrinkage the foam will undergo at any particular temperature is dependant on a number of system variables such as, sample dimensions, cell size, loading conditions and exposure period.

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Property	Result	Test Standard
Flammability**		
Aviation:	complies	FAR- 25.853 F 1a. 1ii
	complies	JAR- 25.853 F 1a. 1ii
	complies	CAA8/2 - 2.2b
Automotive:	pass: 2mm &thicker <100mm/min	FMVSS.302
Construction:	pass: 6-20mm thick	DIN 4102 pt14-B1
	pass: 3-13mm thick	UL94 HF1 + HF2
Horizontal burn rate:		
5mm thick	extinguishes and melts from flame	ISO 7214 1998
13mm thick	extinguishes and melts from flame	

** Test reports on Certification are available on request

Special Information
All data and technical information are based on laboratory tests or have been compiled from supplier information to the best of our knowledge. A guarantee that the values are complete and correct can however not be given. You are kindly requested to conduct your own tests to determine the suitability of our product for your applications. Our General Conditions answer any questions on guarantees and liabilities for these products insofar as no other legal regulations apply. 09/2008

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