



ZOTEK[®] N

HIGH PERFORMANCE POLYAMIDE FOAMS

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ZOTEK[®] N B50 is closed cell, cross-linked polyamide-6 foam manufactured using Zotefoams unique production process. Available in sheet form, it can be fabricated by a variety of techniques and thermoformed into shapes.

This guidance data is for material conditioned for 6 days at 73°F, 50% RH.

Property	Test Method	Units	Typical Value
Density	ISO 845	pcf	3.1
Max. operating temperature ^a	Internal	°F	+410 max
Compression stress-strain characteristics			
10% compression	ISO 7214	psi	35
25% compression	(1st compression)	psi	40
40% compression		psi	45
50% compression		psi	50
Tensile strength	ISO 1798	psi	180
Elongation		%	75
Tear strength	ISO 8067	lbf/in	17
Compression set			
	ISO 7214		
(22 hrs @ 25% compression, 73°F, 1/2 hr recovery)	1" cell-cell	% set	14
(22 hrs @ 25% compression, 73°F, 24 hrs recovery)	1" cell-cell	% set	12
	ASTM D3575		
(22 hrs @ 50% compression, 73°F, 1/2 hr recovery)	1" cell-cell	% set	29
(22 hrs @ 50% compression, 73°F, 24 hrs recovery)	1" cell-cell	% set	24
Shore Hardness	ISO 868	OO	79
Cell Size	Internal	in	0.01
Thermal Conductivity			
Mean temperature of 32°F	ISO 8301	Btu in/ft ² .hr.°F	0.250
Mean temperature of 77°F		Btu in/ft ² .hr.°F	0.265
Mean temperature of 122°F		Btu in/ft ² .hr.°F	0.281
Mean temperature of 176°F		Btu in/ft ² .hr.°F	0.291
Flammability			
Automotive	FMVSS.302 Burn rate <4 in/min		Pass at 1/6" and thicker
Equilibrium moisture content	ISO 760	Weight %	2.4



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NOTES

MATERIAL CONDITION

The data presented above is the result of testing carried out on material conditioned for 6 days at 73°F, 50% RH. Results for samples conditioned at other temperatures and relative humidity would be expected to show some variation.

°MAXIMUM OPERATING TEMPERATURE

The Maximum Operating Temperature is defined as that temperature which will typically cause a linear shrinkage of 5% after a 24 hr exposure period, using a sample of 4 x 4 x 1".

The degree of shrinkage varies with material type and density, temperature, exposure period, sample dimensions and cell size. Other temperatures may prove to be limiting depending on the particular application requirements.



ZOTEFOAMS

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