

ZOTEK® NB 50

High Performance Foams



Product information

Typical values

ZOTEK® N B50 is closed cell foam of density 50 kg/m³ made from polyamide 6 available in sheet form. The material will thermoform into simple and complex shapes. This product information sheet provides typical values for the foam and does not constitute a specification.

All samples tested were conditioned for 6 days at 23 °C ±1 50% RH ±5

Property	Test Standard	Units	Typical Value
Apparent Density			
Skin/Skin	BS EN ISO 7214:2012	kg/m ³ (pcf)	50 (3.1)
Cell/Cell			48 (3)
Cell Size (cell diameter)			
	Internal	mm (in)	0.25 (0.01)
Compression Stress-Strain			
25% compression	BS EN ISO 7214:2012	kPa (psi)	190 (27.5)
50% compression	1 st Compression		280 (40.6)
Tensile Strength			
	BS EN ISO 7214:2012	kPa (psi)	1300 (188)
Tensile Elongation			
		%	90
Compression Set			
25% comp. / 22hr / 23°C	BS EN ISO 7214:2012		
½ hr recovery	25mm cell-cell	% set	16
Thermal Conductivity			
Mean Temperature	ISO 8301	W/mK	0.0381
	25 °C (77 °F)	(Btu in/ft ² .hr.°F)	(0.264)
Flammability			
Automotive	FMVSS.302 - Burn Rate	<100 mm/min	Pass at 4 mm
Maximum Operating Temperature*			
	Internal	°C (°F)	205 (401)

*Recommended maximum operating temperature

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 dependent on a number of system variables such as, sample dimensions, cell size, loading conditions and exposure period.

ZOTEK® NB 50

High Performance Foams

ZOTEK®

Exclusion of Liability

Any information contained in this document is, to the best of the knowledge and belief of Zotefoams plc and of Zotefoams Inc. (together herein referred to as ZOTEFOAMS), accurate. Any liability on the part of ZOTEFOAMS or any subsidiary or holding company of ZOTEFOAMS for any loss, damage, costs or expenses directly or indirectly arising out of the use of such information or the use, application, adaptation or processing of any goods, materials or products described herein is, save as provided in ZOTEFOAMS' conditions of sale ("Conditions of Sale"), hereby excluded to the fullest extent permitted by law. Where ZOTEFOAMS' goods or materials are to be used in conjunction with other goods or materials, it is the responsibility of the user to obtain from the manufacturers or suppliers of the other goods or materials all technical data and other properties relating to those other goods or materials. Save as provided in the Conditions of Sale no liability can be accepted in respect of the use of ZOTEFOAMS' goods or materials in conjunction with any other goods or materials.

Where ZOTEFOAMS' goods or materials are likely to come into contact with foodstuffs or pharmaceuticals, whether directly or indirectly, or are likely to be used in the manufacture of toys, prior written confirmation of compliance with relevant legislative or regulatory standards for those applications may be requested from ZOTEFOAMS, if appropriate. Save as provided in the Conditions of Sale no liability can be accepted for any damage, loss or injury directly or indirectly arising out of any failure by the user to obtain such confirmation or to observe any recommendations given by or on behalf of ZOTEFOAMS.

ZOTEFOAMS MAKES NO WARRANTIES EXPRESS OR IMPLIED, EXCEPT TO THE EXTENT SET OUT IN THE CONDITIONS OF SALE, AND HEREBY SPECIFICALLY EXCLUDES ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ANY GOODS, MATERIALS OR PRODUCTS DESCRIBED HEREIN.

Zotefoams plc Management systems are covered by the following:



Quality
FM 01870
ISO 9001:2015



Safety
OHS 52538
ISO 45001: 2018



Environment
EMS 36270
ISO 14001:2015

ZOTEFOAMS plc

675 Mitcham Road
Croydon
Surrey
CR9 3AL
United Kingdom

Tel: +44 (0) 20 8664 1600
Fax: +44 (0) 20 8664 1616
Email: info@zotefoams.com

ZOTEFOAMS inc

55 Precision Drive
Walton
Kentucky
41094
USA

Tel: +1 859 371
Freephone: (800) 362 8358 US only
Fax: +1 859 371 4734

ZOTEK® is a registered trademark of Zotefoams plc. All rights reserved

Issue 0 Revision 3
Feb 2024