

Datasheet

Durethan B30SF 000000

PA 6, non-reinforced, injection molding, suitable for food-contact

ISO Shortname: ISO 16396-PA 6,,GR,S14-030

Property	Test Condition	Unit	Standard	guide value ¹	
				dry as molded	conditioned
Mechanical properties (23 °C/50 % r. h.)					
Tensile modulus	1 mm/min	lb/in ²	ASTM D 638	464000	159000
Tensile stress at yield	-	lb/in ²	ASTM D 638	11600	5800
Tensile elongation at yield	-	%	ASTM D 638	4.0	20
Tensile elongation at break	-	%	ASTM D 638	35	> 50
Tensile stress at break	-	lb/in ²	ASTM D 638	7250	8700
Izod notched impact strength	73 °F, 0.125 in	ft-lb/in	ASTM D 256	1.1	14
Flexural modulus	-	lb/in ²	ASTM D 790	392000	102000
Flexural stress at 5 % strain	-	lb/in ²	ASTM D 790	16700	5080
Thermal properties					
Deflection temperature under load, Unannealed	66 psi; 0.157 in	°F	ASTM D 648	356	
Deflection temperature under load, Unannealed	264 psi; 0.157 in	°F	ASTM D 648	140	
UL94 Flame Class	Thickness tested: 1.5 mm	Class	UL 94	V-2	
UL94 Flame Class	Thickness tested: 3.0 mm	Class	UL 94	V-2	
Relative temperature index, mechanical with impact	Thickness tested: 1.5 mm	°C	UL 746B	65	
Relative temperature index, mechanical without impact	Thickness tested: 1.5 mm	°C	UL 746B	75	
Relative temperature index, electrical	Thickness tested: 1.5 mm	°C	UL 746B	105	
Electrical properties (23 °C/50 % r. h.)					
Dissipation factor	50 Hz	-	IEC 60250	0.05	2.3
Dissipation factor	1 MHz	-	IEC 60250	0.07	0.4
Volume resistivity		Ohm-m	IEC 60093	1E13	1E10
Surface resistivity		Ohm	IEC 60093	1E13	1E12
Dielectric strength	0.118 in	V/mil	IEC 60243-1	762	889
Dielectric constant, Tinfoil electrodes	50 Hz	-	IEC 60250	3.8	20
Dielectric constant, Tinfoil electrodes	1 MHz	-	IEC 60250	3.4	4.6
Comparative tracking index CTI		V	ASTM D 3638		600
Other properties (23 °C)					
Density		lb/in ³	ASTM D 792	0.041	
Specific gravity		-	ASTM D 792	1.14	

Notes

¹ Typical properties: these are not to be construed as specifications

Datasheet

Durethan B30SF 000000

Disclaimer

Standard Disclaimer

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether they are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale. All information and technical assistance is given without warranty or guarantee, and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with patents covering any material or its use. No license is implied or in fact granted under the claims of any patent.

Typical Properties

Property data is provided as general information only. Property values are approximate and are not part of the product specifications.

Flammability

Flammability results are based on small-scale laboratory tests for purposes of relative comparison and are not intended to reflect the hazards presented by this or any other material under actual fire conditions.

Health and Safety

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling Envalior products mentioned in this publication. Before working with these products, you must read and become familiar with the available information on their hazards, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., material safety data sheets (MSDS) and product labels. Consult your Envalior representative or contact the Product Safety and Regulatory Affairs Department. For materials that are not Envalior products, appropriate industrial hygiene and other safety precautions recommended by their manufacturer(s) must be followed.

Regulatory Compliance

Some of the end uses of the products described in this brochure must comply with applicable regulations, such as the FDA, NSF, USDA and CPSC. If you have any questions on the regulatory status of any Envalior engineering thermoplastic, consult your Envalior representative or contact the Regulatory Affairs Manager.

Color and Visual Effects

Type and quantity of pigments or additives used to obtain certain colors and special visual effects can affect mechanical properties.

© **Envalior** Performance Materials LLC | Pittsburgh, PA 15275
