Durethan BCF30XH2.0 901510

PA 6, 30 % glass fibers/carbon fibers, injection molding, heat-aging stabilized, improved electrical conductivity

ISO Shortname: ISO 16396-PA 6,(GF+CF)30,GHR,S14-140

Property	Test Condition	Unit	Standard	guide value [1] d.a.m.	guide value [1] cond.
Rheological properties					
C Melt volume-flow rate	260 °C; 5 kg	cm³/(10 min)	ISO 1133-1	15	
Molding shrinkage, parallel	150x105x3; 280 °C / MT 80 °C; 500 bar	%	acc. ISO 2577	0.15	
Molding shrinkage, transverse	150x105x3; 280 °C / MT 80 °C; 500 bar	%	acc. ISO 2577	0.75	
Post- shrinkage, parallel	150x105x3; 120 °C; 4 h	%	acc. ISO 2577	0.03	
Post- shrinkage, transverse	150x105x3; 120 °C; 4 h	%	acc. ISO 2577	0.1	
C Molding shrinkage, parallel	60x60x2; 280 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.22	
C Molding shrinkage, transverse	60x60x2; 280 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.77	
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.03	
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.08	
Mechanical properties (23 °C/50 % r. h.)					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	13500	6700
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	195	100
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	3.1	5.0
C Charpy impact strength	23 °C	kJ/m²	ISO 179-1eU	75	80
C Charpy impact strength	-30 °C	kJ/m²	ISO 179-1eU	60	60
C Charpy notched impact strength	23 °C	kJ/m²	ISO 179-1eA	11	
C Charpy notched impact strength	-30 °C	kJ/m²	ISO 179-1eA	<10	
Izod impact strength	23 °C	kJ/m²	ISO 180-1U	65	65
Izod impact strength	-30 °C	kJ/m²	ISO 180-1U	60	60
Izod notched impact strength	23 °C	kJ/m²	ISO 180-1A	10	
Flexural modulus	2 mm/min	MPa	ISO 178-A	11500	6800
Flexural strength	2 mm/min	MPa	ISO 178-A	280	160
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	3.5	5.0
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A		145
C Puncture energy	23 °C	J	ISO 6603-2	2.4	
C Puncture energy	-30 °C	J	ISO 6603-2	1.7	
Ball indentation hardness		N/mm²	ISO 2039-1	211	
Thermal properties					
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	220	
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	205	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	219	
C Temperature of deflection under load	8.00 MPa	°C	ISO 75-1,-2	140	
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	214	
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10^{-4}/K	ISO 11359-1,-2	0.2	
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10^{-4}/K	ISO 11359-1,-2	0.9	
C Burning behavior UL 94	1.5 mm	Class	UL 94	HB	
C Burning behavior UL 94	0.75 mm	Class	UL 94	HB	

Durethan BCF30XH2.0 901510

Property	Test Condition	Unit	Standard	guide value [1] d.a.m.	guide value [1] cond.
Burning behavior US-FMVSS302	>=1.0 mm		ISO 3795	passed	
Electrical properties (23 °C/50 % r. h.)					
C Volume resistivity		Ohm·m	IEC 60093	2.00E+03	
C Surface resistivity		Ohm	IEC 60093	4.00E+04	
Other properties (23 °C)					
C Density		kg/m³	ISO 1183	1334	
Bulk density		kg/m³	ISO 60	680	
Processing conditions for test specimens					
C Injection molding-Melt temperature		°C	ISO 294	280	
C Injection molding-Mold temperature		°C	ISO 294	80	
Processing recommendations					
Drying temperature dry air dryer		°C	-	80	
Drying time dry air dryer		h	-	2-6	
Residual moisture content		%	Acc. to Karl Fischer	0.03-0.12	
Melt temperature (Tmin - Tmax)		°C	-	270-290	
Mold temperature		°C	-	80-120	

Notes
1 Typical properties: these are not to be construed as specifications
C These property characteristics are taken from the CAMPUS plastics data bank and are based on the international catalogue of basic data for plastics according to ISO 10350.

Durethan BCF30XH2.0 901510

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 LANXESS 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 LANXESS Corporation representative or contact the Product Safety and Regulatory Affairs Department at LANXESS. For materials that are not LANXESS 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 LANXESS engineering thermoplastic, consult your LANXESS Corporation representative or contact the LANXESS 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.

LANXESS Corporation | Pittsburgh, PA 15275