Durethan BKV50H2.0EF 900116

PA 6, 50 % glass fibers, injection molding, improved flowability, heat-aging stabilized

ISO Shortname: ISO 16396-PA 6,GF50,GHR,S10-160

Property	Test Condition	Unit	Standard	guide value [1] d.a.m.	guide value [1] cond.
Rheological properties					
C Molding shrinkage, parallel	60x60x2; 280 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.19	
C Molding shrinkage, transverse	60x60x2; 280 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.6	
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.04	
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	16200	10000
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	215	140
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	2.7	3.5
C Charpy impact strength	23 °C	kJ/m²	ISO 179-1eU	100	85
C Charpy impact strength	-30 °C	kJ/m²	ISO 179-1eU	95	85
Izod impact strength	23 °C	kJ/m²	ISO 180-1U	85	80
Izod impact strength	-30 °C	kJ/m²	ISO 180-1U	85	80
Izod notched impact strength	23 °C	kJ/m²	ISO 180-1A	17	20
Izod notched impact strength	-30 °C	kJ/m²	ISO 180-1A	15	
Flexural modulus	2 mm/min	MPa	ISO 178-A	15000	9900
Flexural strength	2 mm/min	MPa	ISO 178-A	340	230
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	3.1	4.4
C Puncture maximum force	23 °C	N	ISO 6603-2	1179	
C Puncture maximum force	-30 °C	N	ISO 6603-2	1000	
C Puncture energy	23 °C	J	ISO 6603-2	4.3	
C Puncture energy	-30 °C	J	ISO 6603-2	3.4	
Ball indentation hardness		N/mm²	ISO 2039-1	232	
Thermal properties					
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	222	
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	210	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	220	
C Temperature of deflection under load	8.00 MPa	°C	ISO 75-1,-2	180	
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	0.12	
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10^{-4}/K	ISO 11359-1,-2	0.9	
Electrical properties (23 °C/50 % r. h.)					
C Relative permittivity	100 Hz	-	IEC 60250	4.7	12.9
C Relative permittivity	1 MHz	-	IEC 60250	4.2	4.8
C Dissipation factor	100 Hz	10^{-4}	IEC 60250	135	2622
C Dissipation factor	1 MHz	10^{-4}	IEC 60250	170	774
C Volume resistivity		Ohm·m	IEC 60093	7E12	4E9
C Electric strength	1 mm	kV/mm	IEC 60243-1	35	34
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	400	

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Property	Test Condition	Unit	Standard	guide value [1] d.a.m.	guide value [1] cond.
Other properties (23 °C)					
C Density		kg/m³	ISO 1183	1570	
Bulk density		kg/m³	ISO 60	700	
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.

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Standard Disclaimer

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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.

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