

Datasheet

Durethan DPBKV60EF 000000

PA 6, 60% glass fibers, injection molding, improved flowability

ISO Shortname: ISO 16396-PA 6,GF60,GHR,S10-190

Property	Test Condition	Unit	Standard	guide value ¹	
				d.a.m.	cond.
Rheological properties					
C Molding shrinkage, parallel	60x60x2; 280 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.25	
C Molding shrinkage, transverse	60x60x2; 280 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.35	
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.03	
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.07	
Mechanical properties (23 °C/50 % r. h.)					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	20000	12500
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	230	158
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	2.5	3.5
C Charpy impact strength	23 °C	kJ/m ²	ISO 179-1eU	95	95
C Charpy impact strength	-30 °C	kJ/m ²	ISO 179-1eU	95	95
C Charpy notched impact strength	23 °C	kJ/m ²	ISO 179-1eA	17	24
C Charpy notched impact strength	-30 °C	kJ/m ²	ISO 179-1eA	17	
Izod impact strength	23 °C	kJ/m ²	ISO 180-1U	90	90
Izod impact strength	-30 °C	kJ/m ²	ISO 180-1U	90	90
Izod notched impact strength	23 °C	kJ/m ²	ISO 180-1A	18	28
Izod notched impact strength	-30 °C	kJ/m ²	ISO 180-1A	18	
Flexural modulus	2 mm/min	MPa	ISO 178-A	20200	13700
Flexural strength	2 mm/min	MPa	ISO 178-A	390	260
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	3.0	5
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A		250
C Puncture maximum force	23 °C	N	ISO 6603-2	1370	
C Puncture maximum force	-30 °C	N	ISO 6603-2	1300	
C Puncture energy	23 °C	J	ISO 6603-2	4.3	
C Puncture energy	-30 °C	J	ISO 6603-2	3.7	
Thermal properties					
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	221	
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	213	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	222	
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.1	
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.8	
C Burning behavior UL 94	1.5 mm	Class	UL 94	HB	
C Burning behavior UL 94	0.75 mm	Class	UL 94	HB	

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Electrical properties (23 °C/50 % r. h.)				
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	600
Other properties (23 °C)				
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	3.7
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	1.2
C Density		kg/m ³	ISO 1183	1720
Bulk density		kg/m ³	ISO 60	750
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	0.05-0.15
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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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.

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