

Datasheet

Durethan ECOBKV45 901510

PA 6, 45% glass fibers, injection molding

ISO Shortname: ISO 16396-PA 6,GF45(R),GR,S14-140

Property	Test Condition	Unit	Standard	guide value ¹	
				d.a.m.	cond.
Mechanical properties (23 °C/50 % r. h.)					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	14000	9300
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	212	135
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	3.0	5.5
C Charpy impact strength	23 °C	kJ/m ²	ISO 179-1eU	100	100
C Charpy impact strength	-30 °C	kJ/m ²	ISO 179-1eU	95	85
C Charpy notched impact strength	23 °C	kJ/m ²	ISO 179-1eA	15	25
C Charpy notched impact strength	-30 °C	kJ/m ²	ISO 179-1eA	14	12
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	85
Izod notched impact strength	23 °C	kJ/m ²	ISO 180-1A	17	25
Izod notched impact strength	-30 °C	kJ/m ²	ISO 180-1A	15	13
Flexural modulus	2 mm/min	MPa	ISO 178-A	13000	9000
Flexural strength	2 mm/min	MPa	ISO 178-A	330	210
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	3.5	5
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	325	185
Thermal properties					
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	216	
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	
Other properties (23 °C)					
C Density		kg/m ³	ISO 1183	1510	
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	-	4	
Residual moisture content		%	Acc. to Karl Fischer	0.03-0.12	
Melt temperature (Tmin - Tmax)		°C	-	280-300	
Mold temperature		°C	-	80-120	

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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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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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