

# Datasheet

## Durethan BKV30EF 000000

PA 6, 30% glass fibers, injection molding, improved flowability

ISO Shortname: ISO 16396-PA 6,GF30,GR,S10-090

Property	Test Condition	Unit	Standard	guide value <sup>1</sup>	
				d.a.m.	cond.
<b>Rheological properties</b>					
Molding shrinkage, parallel	150x105x3; 270 °C / WZ 80 °C; 500 bar	%	acc. ISO 294-4	0.168	
Molding shrinkage, transverse	150x105x3; 270 °C / WZ 80 °C; 500 bar	%	acc. ISO 294-4	0.738	
Post- shrinkage, parallel	150x105x3; 120 °C; 4 h	%	acc. ISO 294-4	0.037	
Post- shrinkage, transverse	150x105x3; 120 °C; 4 h	%	acc. ISO 294-4	0.148	
C Molding shrinkage, parallel	60x60x2; 270 °C / WZ 120 °C; 600 bar	%	ISO 294-4	0.226	
C Molding shrinkage, transverse	60x60x2; 270 °C / WZ 120 °C; 600 bar	%	ISO 294-4	0.578	
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.049	
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.143	
<b>Mechanical properties (23 °C/50 % r. h.)</b>					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	9300	5700
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	180	100
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	3.2	5.6
C Charpy impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eU	65	75
C Charpy impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 179-1eU	55	55
C Charpy notched impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eA	11	20
C Charpy notched impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 179-1eA	<10	<10
Izod impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-1U	55	65
Izod impact strength	-40 °C	kJ/m <sup>2</sup>	ISO 180-1U	45	35
Izod notched impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-1A	10	15
Izod notched impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 180-1A	<10	<10
Flexural modulus	2 mm/min	MPa	ISO 178-A	7800	5100
Flexural strength	2 mm/min	MPa	ISO 178-A	270	170
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	4.1	5.9
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	255	135
<b>Thermal properties</b>					
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	200	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	150	
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	210	
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	0.2	
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	1	

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Property	Test Condition	Unit	Standard	guide value <sup>1</sup> d.a.m. cond.
C Burning behavior UL 94	1.5 mm	Class	UL 94	HB
C Burning behavior UL 94	0.75 mm	Class	UL 94	HB
<b>Other properties (23 °C)</b>				
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	7
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	2.1
C Density		kg/m <sup>3</sup>	ISO 1183	1350
Bulk density		kg/m <sup>3</sup>	ISO 60	650
<b>Processing conditions for test specimens</b>				
C Injection molding-Melt temperature		°C	ISO 294	270
C Injection molding-Mold temperature		°C	ISO 294	80
<b>Processing recommendations</b>				
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	-	250-290
Mold temperature		°C	-	80-100

### 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.

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