

# Datasheet

## Durethan BKV30PH2.0 901510

PA 6, 30% glass fibers, injection molding, heat-aging stabilized, improved fatigue behavior

ISO Shortname: ISO 16396-PA 6,GF30,GHR,S14-100

Property	Test Condition	Unit	Standard	guide value <sup>1</sup>	
				d.a.m.	cond.
<b>Rheological properties</b>					
C Molding shrinkage, parallel	60x60x2	%	ISO 294-4	0.2	
C Molding shrinkage, transverse	60x60x2	%	ISO 294-4	0.7	
Post- shrinkage, parallel	60x60x2	%	ISO 294-4	0.05	
Post- shrinkage, transverse	60x60x2	%	ISO 294-4	0.15	
<b>Mechanical properties (23 °C/50 % r. h.)</b>					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	10000	5800
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	170	100
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	3.5	9
Tensile modulus	1 mm/min; 120 °C	MPa	ISO 527-1,-2	4000	
Tensile Stress at break	5 mm/min; 120 °C	MPa	ISO 527-1,-2	90	
Tensile Strain at break	5 mm/min; 120 °C	%	ISO 527-1,-2	10.5	
C Charpy impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eU	80	100
C Charpy impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 179-1eU	65	65
C Charpy notched impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eA	10	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	70	85
Izod impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 180-1U	65	60
Izod notched impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-1A	10	20
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	9500	5600
Flexural strength	2 mm/min	MPa	ISO 178-A	270	165
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	4	7
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	260	140
Ball indentation hardness		N/mm <sup>2</sup>	ISO 2039-1	230	
<b>Thermal properties</b>					
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	220	
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	214	
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	
<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	

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Property	Test Condition	Unit	Standard	guide value <sup>1</sup> d.a.m. cond.
C Density		kg/m <sup>3</sup>	ISO 1183	1360
Bulk density		kg/m <sup>3</sup>	ISO 60	700
<b>Processing conditions for test specimens</b>				
C Injection molding-Melt temperature		°C	ISO 294	280
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	-	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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