

# Datasheet

## Durethan BKV40PH3.0 901510

PA 6, 40% glass fibers, injection molding, heat-aging stabilized, improved fatigue behavior

ISO Shortname: ISO 16396-PA 6,GF40,GHR,S14-120

Property	Test Condition	Unit	Standard	guide value <sup>1</sup> d.a.m. cond.	
Mechanical properties (23 °C/50 % r. h.)					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	12500	8000
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	200	125
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	3.5	7.5
Tensile modulus	1 mm/min; 120 °C	MPa	ISO 527-1,-2	5400	
Tensile Stress at break	5 mm/min; 120 °C	MPa	ISO 527-1,-2	100	
Tensile Strain at break	5 mm/min; 120 °C	%	ISO 527-1,-2	9.0	
C Charpy impact strength	23 °C	kJ/m²	ISO 179-1eU	100	100
C Charpy impact strength	-30 °C	kJ/m²	ISO 179-1eU	90	85
C Charpy notched impact strength	23 °C	kJ/m²	ISO 179-1eA	15	25
C Charpy notched impact strength	-30 °C	kJ/m²	ISO 179-1eA	10	10
Izod impact strength	23 °C	kJ/m²	ISO 180-1U	90	90
Izod notched impact strength	23 °C	kJ/m²	ISO 180-1A	15	25
Flexural modulus	2 mm/min	MPa	ISO 178-A	12250	7600
Flexural strength	2 mm/min	MPa	ISO 178-A	320	200
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	3.6	6
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	320	200
Ball indentation hardness		N/mm²	ISO 2039-1	250	
Thermal properties					
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	210	
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	215	
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	0.16	
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	0.9	
Other properties (23 °C)					
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	6.0	
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	1.8	
C Density		kg/m³	ISO 1183	1460	
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	

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				d.a.m. cond.
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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Property data is provided as general information only. Property values are approximate and are not part of the product specifications.

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