

Datasheet

Durethan BKV40H3.0EF 901510 DUS001

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

ISO Shortname: ISO 16396-PA 6,GF40,GHR,S12-120

Property	Test Condition	Unit	Standard	guide value ¹	
				d.a.m.	cond.
Rheological properties					
C Molding shrinkage, parallel	60x60x2	%	ISO 294-4	0.15	
C Molding shrinkage, transverse	60x60x2	%	ISO 294-4	0.65	
Post- shrinkage, parallel	60x60x2	%	ISO 294-4	0.1	
Post- shrinkage, transverse	60x60x2	%	ISO 294-4	0.1	
Mechanical properties (23 °C/50 % r. h.)					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	12500	7700
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	190	115
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	85	90
C Charpy impact strength	-30 °C	kJ/m ²	ISO 179-1eU	70	70
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	10	10
Izod impact strength	23 °C	kJ/m ²	ISO 180-1U	80	85
Izod impact strength	-30 °C	kJ/m ²	ISO 180-1U	70	
Izod notched impact strength	23 °C	kJ/m ²	ISO 180-1A	15	23
Izod notched impact strength	-30 °C	kJ/m ²	ISO 180-1A	10	
Flexural modulus	2 mm/min	MPa	ISO 178-A	11500	7700
Flexural strength	2 mm/min	MPa	ISO 178-A	285	190
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	3.2	4.8
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A		170
C Puncture maximum force	23 °C	N	ISO 6603-2	900	
C Puncture maximum force	-30 °C	N	ISO 6603-2	800	
C Puncture energy	23 °C	J	ISO 6603-2	3.2	
C Puncture energy	-30 °C	J	ISO 6603-2	3.4	
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	208	
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	210	
Other properties (23 °C)					
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	5.8	
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	1.7	
C Density		kg/m ³	ISO 1183	1450	
Bulk density		kg/m ³	ISO 60	700	

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Property	Test Condition	Unit	Standard	guide value ¹ d.a.m. cond.
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
Melt temperature (Tmin - Tmax)		°C	-	260-290
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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