

Data sheet

Durethan BKV215H3.0 000000

PA 6-Copolymer, 15 % glass fibers, injection molding, improved impact strength, heat-aging stabilized

ISO Shortname: ISO 16396-PA 6/66-I,GF15,GHR,S14-040

Property	Test Condition	Unit	Standard	guide value	
				d.a.m.	cond.
Rheological properties					
Molding shrinkage, parallel	150x105x3; 280 °C / MT 80 °C; 400 % bar		acc. ISO 2577	0.3	
Molding shrinkage, transverse	150x105x3; 280 °C / MT 80 °C; 400 % bar		acc. ISO 2577	0.83	
Post- shrinkage, parallel	150x105x3; 120 °C; 4 h	%	acc. ISO 2577	0.05	
Post- shrinkage, transverse	150x105x3; 120 °C; 4 h	%	acc. ISO 2577	0.15	
C Molding shrinkage, parallel	60x60x2; 280 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.6	
C Molding shrinkage, transverse	60x60x2; 280 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.6	
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.15	
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.15	
Mechanical properties (23 °C/50 % r. h.)					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	4500	2300
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	85	50
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	4.5	15
C Charpy impact strength	23 °C	kJ/m²	ISO 179-1eU	70	95
C Charpy impact strength	-30 °C	kJ/m²	ISO 179-1eU	80	80
C Charpy notched impact strength	23 °C	kJ/m²	ISO 179-1eA	20	35
C Charpy notched impact strength	-30 °C	kJ/m²	ISO 179-1eA	10	12
Izod impact strength	23 °C	kJ/m²	ISO 180-1U	60	90
Izod impact strength	-30 °C	kJ/m²	ISO 180-1U	65	60
Izod notched impact strength	23 °C	kJ/m²	ISO 180-1A	20	35
Izod notched impact strength	-30 °C	kJ/m²	ISO 180-1A	10	10
Flexural modulus	2 mm/min	MPa	ISO 178-A	4200	2300
Flexural strength	2 mm/min	MPa	ISO 178-A	135	75
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	5.5	8.5
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	125	55
C Puncture maximum force	23 °C	N	ISO 6603-2	1000	
C Puncture maximum force	-30 °C	N	ISO 6603-2	650	
C Puncture energy	23 °C	J	ISO 6603-2	13	
C Puncture energy	-30 °C	J	ISO 6603-2	4.8	
Ball indentation hardness		N/mm²	ISO 2039-1	110	55
Thermal properties					
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	214	
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	175	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	205	
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	200	
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10-4/K	ISO 11359-1,-2	0.4	
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10-4/K	ISO 11359-1,-2	1.7	
C Burning behavior UL 94	1.5 mm	Class	UL 94	HB	
C Oxygen index	Method A	%	ISO 4589-2	22	
Other properties (23 °C)					
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	7.0	
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	2.0	
C Density		kg/m³	ISO 1183	1180	
Bulk density		kg/m³	ISO 60	600	
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	

Residual moisture content	%	Acc. to Karl Fischer	0.03-0.12
Melt temperature (Tmin - Tmax)	°C	-	260-290
Mold temperature	°C	-	80-100

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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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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Color and Visual Effects

Type and quantity of pigments or additives used to obtain certain colors and special visual effects can affect mechanical properties.

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Date: 01.05.2019



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