

Durethan BTC65H3.0EF 901510

PA 6, 65% mineral, injection molding, heat-aging stabilized, improved heat conductivity

ISO Shortname: ISO 16396-PA 6,MD65,GHR,S10-090

Property	Test Condition	Unit	Standard	guide value d.a.m.	cond.
Rheological properties					
C Molding shrinkage, parallel	60x60x2; 290 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.70	
C Molding shrinkage, transverse	60x60x2; 290 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.75	
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	9900	3500
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	90	50
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	3	5
C Charpy impact strength	23 °C	kJ/m ²	ISO 179-1eU	45	35
C Charpy impact strength	-30 °C	kJ/m ²	ISO 179-1eU	25	20
C Charpy notched impact strength	23 °C	kJ/m ²	ISO 179-1eA	<10	<10
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	35	25
Izod impact strength	-30 °C	kJ/m ²	ISO 180-1U	25	20
Izod notched impact strength	23 °C	kJ/m ²	ISO 180-1A	<10	<10
Izod notched impact strength	-30 °C	kJ/m ²	ISO 180-1A	<10	<10
Flexural modulus	2 mm/min	MPa	ISO 178-A	10000	3800
Flexural strength	2 mm/min	MPa	ISO 178-A	160	75
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	3.6	4
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	155	70
Thermal properties					
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	145	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	190	
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	208	
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.5	
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.6	
Thermal conductivity, in-plane		W/(m·K)	ISO 22007-4	1.3	
Thermal conductivity, through-plane		W/(m·K)	ISO 22007-4	1.0	
C Burning behavior UL 94	0.75 mm	Class	UL 94	HB	
Glow wire test (GWFI)	0.75 mm	°C	IEC 60695-2-12	900	
Glow wire test (GWFI)	1.5 mm	°C	IEC 60695-2-12	960	
Glow wire test (GWFI)	3.0 mm	°C	IEC 60695-2-12	960	
Glow wire test (GWIT)	0.75 mm	°C	IEC 60695-2-13	750	
Glow wire test (GWIT)	1.5 mm	°C	IEC 60695-2-13	750	
Glow wire test (GWIT)	3.0 mm	°C	IEC 60695-2-13	750	
Burning behavior US-FMVSS302	>=1.0 mm		ISO 3795	passed	



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Property	Test Condition	Unit	Standard	guide value d.a.m. cond.
Electrical properties (23 °C/50 % r. h.)				
C Volume resistivity		Ohm-m	IEC 60093	1.00E+15
C Surface resistivity		Ohm	IEC 60093	6.00E+13
C Electric strength	1 mm	kV/mm	IEC 60243-1	37 35
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	600
Other properties (23 °C)				
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	3.4
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	1
C Density		kg/m ³	ISO 1183	2005
Processing conditions for test specimens				
C Injection molding-Melt temperature		°C	ISO 294	290
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	-	280-300
Mold temperature		°C	-	80-120

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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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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