

Datasheet

Durethan DPAKV50HRH2.0 901510

PA 66, 50% glass fibers, injection molding, heat-aging stabilized, hydrolysis stabilized

ISO Shortname: ISO 16396-PA 66,GF50,GHRW,S14-160

Property	Test Condition	Unit	Standard	guide value ¹	
				d.a.m.	cond.
Rheological properties					
C Molding shrinkage, parallel	60x60x2; 300 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.35	
C Molding shrinkage, transverse	60x60x2; 300 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.9	
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.05	
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.1	
Mechanical properties (23 °C/50 % r. h.)					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	15800	10500
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	225	160
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	2.7	4.5
C Charpy impact strength	23 °C	kJ/m ²	ISO 179-1eU	100	95
C Charpy impact strength	-30 °C	kJ/m ²	ISO 179-1eU	100	100
C Charpy notched impact strength	23 °C	kJ/m ²	ISO 179-1eA	15	20
C Charpy notched impact strength	-30 °C	kJ/m ²	ISO 179-1eA	12	13
Izod impact strength	23 °C	kJ/m ²	ISO 180-1U	90	85
Izod impact strength	-30 °C	kJ/m ²	ISO 180-1U	90	85
Izod notched impact strength	23 °C	kJ/m ²	ISO 180-1A	15	20
Izod notched impact strength	-30 °C	kJ/m ²	ISO 180-1A	13	14
Flexural modulus	2 mm/min	MPa	ISO 178-A	15500	11000
Flexural strength	2 mm/min	MPa	ISO 178-A	355	260
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	3.2	4.5
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	360	235
C Puncture maximum force	23 °C	N	ISO 6603-2	1100	
C Puncture maximum force	-30 °C	N	ISO 6603-2	1000	
C Puncture energy	23 °C	J	ISO 6603-2	4	
C Puncture energy	-30 °C	J	ISO 6603-2	3	
Thermal properties					
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	261	
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	245	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	250	
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.2	
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 ⁻⁴ /K	ISO 11359-1,-2	0.7	
Other properties (23 °C)					
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	4.6	

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Property	Test Condition	Unit	Standard	guide value ¹ d.a.m. cond.
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	1.5
C Density		kg/m ³	ISO 1183	1570
Bulk density		kg/m ³	ISO 60	700
Processing conditions for test specimens				
C Injection molding-Melt temperature		°C	ISO 294	300
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

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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