

Datasheet

Durethan AKV35LTH3.0 904040

PA 66, 35% glass fibers, injection molding, heat-aging stabilized, improved laser-transparency, NIR-laser transparent coloring (black)

ISO Shortname: ISO 16396-PA 66,GF35,GHR,S14-110

Property	Test Condition	Unit	Standard	guide value ¹ d.a.m. cond.	
Rheological properties					
C Molding shrinkage, parallel	60x60x2; 290 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.3	
C Molding shrinkage, transverse	60x60x2; 290 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.9	
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.1	
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	11000	7500
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	195	125
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	3	5.5
C Charpy impact strength	23 °C	kJ/m²	ISO 179-1eU	65	80
Izod impact strength		kJ/m²	ISO 180-1U	60	70
Izod notched impact strength		kJ/m²	ISO 180-1A	10	15
Flexural modulus	2 mm/min	MPa	ISO 178-A	10000	7800
Flexural strength	2 mm/min	MPa	ISO 178-A	295	214
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	3.5	4.8
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	290	198
Thermal properties					
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	260	
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	230	
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 Density		kg/m³	ISO 1183	1400	
Bulk density		kg/m³	ISO 60	700	
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	

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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.

Flammability

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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