

Datasheet

Durethan AKV50H3.0 000000

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

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

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		0.37
C Molding shrinkage, transverse	60x60x2; 290 °C / MT 80 °C; 600 bar	%	ISO 294-4		0.93
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4		0.05
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4		0.09
Mechanical properties (23 °C/50 % r. h.)					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2		16000
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2		230
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2		2.5
C Charpy impact strength	23 °C	kJ/m ²	ISO 179-1eU		100
C Charpy impact strength	-30 °C	kJ/m ²	ISO 179-1eU		100
C Charpy notched impact strength	23 °C	kJ/m ²	ISO 179-1eA		17
C Charpy notched impact strength	-30 °C	kJ/m ²	ISO 179-1eA		15
Charpy notched impact strength	-40 °C	kJ/m ²	ISO 179-1eA		14
Izod impact strength	23 °C	kJ/m ²	ISO 180-1U		90
Izod impact strength	-30 °C	kJ/m ²	ISO 180-1U		90
Izod notched impact strength	23 °C	kJ/m ²	ISO 180-1A		15
Izod notched impact strength	-30 °C	kJ/m ²	ISO 180-1A		13
Flexural modulus	2 mm/min	MPa	ISO 178-A		15300
Flexural strength	2 mm/min	MPa	ISO 178-A		360
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A		3.0
Thermal properties					
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3		262
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2		250
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2		250
C Burning behavior UL 94	1.5 mm	Class	UL 94		HB
C Burning behavior UL 94	0.75 mm	Class	UL 94		HB
Electrical properties (23 °C/50 % r. h.)					
C Relative permittivity	100 Hz	-	IEC 60250		5.0
C Relative permittivity	1 MHz	-	IEC 60250		4.4
C Dissipation factor	100 Hz	10 ⁻⁴	IEC 60250		250
C Dissipation factor	1 MHz	10 ⁻⁴	IEC 60250		230
C Volume resistivity		Ohm·m	IEC 62631-3		1E13

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C Surface resistivity		Ohm	IEC 62631-3	1E16
C Electric strength	1 mm	kV/mm	IEC 60243-1	38
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	600
Other properties (23 °C)				
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	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

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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