

Data sheet

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	
				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/m²	ISO 179-1eU	100	
C Charpy impact strength	-30 °C	kJ/m²	ISO 179-1eU	100	
C Charpy notched impact strength	23 °C	kJ/m²	ISO 179-1eA	17	
C Charpy notched impact strength	-30 °C	kJ/m²	ISO 179-1eA	15	
Charpy notched impact strength	-40 °C	kJ/m²	ISO 179-1eA	14	
Izod impact strength	23 °C	kJ/m²	ISO 180-1U	90	
Izod impact strength	-30 °C	kJ/m²	ISO 180-1U	90	
Izod notched impact strength	23 °C	kJ/m²	ISO 180-1A	15	
Izod notched impact strength	-30 °C	kJ/m²	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 60093	1E13	
C Surface resistivity		Ohm	IEC 60093	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/m³	ISO 1183	1570	
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	
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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Typical Properties

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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