

Data sheet

Durethan AKV15FN00 000000

PA 66, 12 % glass fibers, injection molding, halogen free flame retardant, heat-aging stabilized

ISO Shortname: ISO 16396-PA 66,GF12 FR(30+40),GF2HR,S14-060

Property	Test Condition	Unit	Standard	guide value	
				d.a.m.	cond.
Rheological properties					
C Molding shrinkage, parallel	60x60x2; 270 °C / WZ 80 °C; 600 bar	%	ISO 294-4	0.6	
C Molding shrinkage, transverse	60x60x2; 270 °C / WZ 80 °C; 600 bar	%	ISO 294-4	1.0	
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	6400	3700
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	90	55
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	3.1	7.1
C Charpy impact strength	23 °C	kJ/m²	ISO 179-1eU	43	55
Izod impact strength	23 °C	kJ/m²	ISO 180-1U	35	45
Izod notched impact strength	23 °C	kJ/m²	ISO 180-1A	<10	<10
Flexural modulus	2 mm/min	MPa	ISO 178-A	6200	3300
Flexural strength	2 mm/min	MPa	ISO 178-A	150	100
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	3.5	7
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A		80
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	215	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	245	
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	230	
C Burning behavior UL 94	1.5 mm	Class	UL 94	V-0	
C Burning behavior UL 94	0.4 mm	Class	UL 94	V-0	
Glow wire test (GWFI)	0.4 mm	°C	IEC 60695-2-12	960	
Glow wire test (GWFI)	0.8 mm	°C	IEC 60695-2-12	960	
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	
Electrical properties (23 °C/50 % r. h.)					
Comparative tracking index CTI	Solution A	PLC	UL 746A	0	
Other properties (23 °C)					
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	5.5	
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	1.8	
C Density		kg/m³	ISO 1183	1275	
Processing conditions for test specimens					
C Injection molding-Melt temperature		°C	ISO 294	270	
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	0.03-0.07	
Melt temperature (Tmin - Tmax)		°C	-	265-285	
Mold temperature		°C	-	80-100	

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.

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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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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