

# Durethan AKV25F30 000000

PA 66, 25% glass fibers, injection molding, flame retardant, heat-aging stabilized

ISO Shortname: ISO 16396-PA 66,GF25 FR(17),GF2HR,S14-100

Property	Test Condition	Unit	Standard	guide value <sup>1</sup>	
				d.a.m.	cond.
<b>Rheological properties</b>					
C Molding shrinkage, parallel	60x60x2; 280 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.4	
C Molding shrinkage, transverse	60x60x2; 280 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.7	
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.1	
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.3	
<b>Mechanical properties (23 °C/50 % r. h.)</b>					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	10500	8000
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	150	100
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	2.2	2.8
C Charpy impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eU	50	50
C Charpy impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 179-1eU	40	40
Izod impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-1U	45	45
Izod impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 180-1U	40	40
Izod notched impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-1A	<10	10
Flexural modulus	2 mm/min	MPa	ISO 178-A	10000	7300
Flexural strength	2 mm/min	MPa	ISO 178-A	220	160
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	2.5	3.5
<b>Thermal properties</b>					
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	238	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	> 240	
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	240	
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	0.3	
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10 <sup>-4</sup> /K	ISO 11359-1,-2	0.8	
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	
C Burning behavior UL 94-5V	1.5 mm	Class	UL 94	5VA	
Burning behavior UL 94-5V	1.0 mm	Class	UL 94	5VA	
Resistance to heat (ball pressure test)		°C	IEC 60695-10-2	242	
Glow wire test (GWFI)	0.4 mm	°C	IEC 60695-2-12	960	
Glow wire test (GWFI)	0.75 mm	°C	IEC 60695-2-12	960	
Glow wire test (GWFI)	1.0 mm	°C	IEC 60695-2-12	960	
Glow wire test (GWFI)	3.0 mm	°C	IEC 60695-2-12	960	
Glow wire test (GWIT)	0.4 mm	°C	IEC 60695-2-13	875	
Glow wire test (GWIT)	0.75 mm	°C	IEC 60695-2-13	900	
Glow wire test (GWIT)	1.0 mm	°C	IEC 60695-2-13	900	
Glow wire test (GWIT)	3.0 mm	°C	IEC 60695-2-13	900	
<b>Electrical properties (23 °C/50 % r. h.)</b>					
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	400	



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<b>Other properties (23 °C)</b>				
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	3.9
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	1.2
C Density		kg/m <sup>3</sup>	ISO 1183	1620
Bulk density		kg/m <sup>3</sup>	ISO 60	700
<b>Processing conditions for test specimens</b>				
C Injection molding-Melt temperature		°C	ISO 294	280
C Injection molding-Mold temperature		°C	ISO 294	80
<b>Processing recommendations</b>				
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	-	270-290
Mold temperature		°C	-	80-100

### 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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