

# Datasheet

## Durethan AKV30GHR 900116 DUS023

PA 66, 30% glass fibers, injection molding, heat-aging stabilized, improved flowability, hydrolysis stabilized, improved surface finish, GIT/WIT

ISO Shortname: ISO 16396-PA 66,GF30,GHRW,S14-080

Property	Test Condition	Unit	Standard	guide value <sup>1</sup>	
				d.a.m.	cond.
<b>Rheological properties</b>					
C Molding shrinkage, parallel	60x60x2; 290 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.64	
C Molding shrinkage, transverse	60x60x2; 290 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.82	
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.05	
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.04	
<b>Mechanical properties (23 °C/50 % r. h.)</b>					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	8500	5600
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	135	90
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	3.2	6.5
C Charpy impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eU	70	65
C Charpy impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 179-1eU	55	
C Charpy notched impact strength	23 °C	kJ/m <sup>2</sup>	ISO 179-1eA	<10	<10
C Charpy notched impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 179-1eA	<10	<10
Izod impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-1U	60	60
Izod impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 180-1U	45	
Izod notched impact strength	23 °C	kJ/m <sup>2</sup>	ISO 180-1A	<10	<10
Izod notched impact strength	-30 °C	kJ/m <sup>2</sup>	ISO 180-1A	<10	<10
Flexural modulus	2 mm/min	MPa	ISO 178-A	8000	5600
Flexural strength	2 mm/min	MPa	ISO 178-A	215	150
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	3.8	5.8
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	210	130
C Puncture maximum force	23 °C	N	ISO 6603-2	800	
C Puncture maximum force	-30 °C	N	ISO 6603-2	650	
C Puncture energy	23 °C	J	ISO 6603-2	2.5	
C Puncture energy	-30 °C	J	ISO 6603-2	2.0	
<b>Thermal properties</b>					
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	259	
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	200	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	245	
C Temperature of deflection under load	8.00 MPa	°C	ISO 75-1,-2	75	
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	0.9	

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Property	Test Condition	Unit	Standard	guide value <sup>1</sup> d.a.m. cond.
<b>Other properties (23 °C)</b>				
C Density		kg/m <sup>3</sup>	ISO 1183	1343
<b>Processing conditions for test specimens</b>				
C Injection molding-Melt temperature		°C	ISO 294	290
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	-	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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