

Data sheet

Durethan ACF30XH2.0EF 901510

PA 66, 30 % glass fibers/carbon fibers, injection molding, improved flowability, heat-aging stabilized, improved electrical conductivity

ISO Shortname: ISO 16396-PA 66,(GF+CF)30,GHR,S14-120

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	0.3	
C Molding shrinkage, transverse	60x60x2; 290 °C / MT 80 °C; 600 bar	%	ISO 294-4	0.8	
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.02	
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.05	
Mechanical properties (23 °C/50 % r. h.)					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	12000	7400
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	170	110
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	2.5	4.5
C Charpy impact strength	23 °C	kJ/m²	ISO 179-1eU	60	65
C Charpy impact strength	-30 °C	kJ/m²	ISO 179-1eU	60	55
C Charpy notched impact strength	23 °C	kJ/m²	ISO 179-1eA	<10	15
C Charpy notched impact strength	-30 °C	kJ/m²	ISO 179-1eA	<10	<10
Izod impact strength	23 °C	kJ/m²	ISO 180-1U	55	65
Izod impact strength	-30 °C	kJ/m²	ISO 180-1U	55	50
Izod notched impact strength	23 °C	kJ/m²	ISO 180-1A	10	15
Izod notched impact strength	-30 °C	kJ/m²	ISO 180-1A	<10	<10
Flexural modulus	2 mm/min	MPa	ISO 178-A	11400	7000
Flexural strength	2 mm/min	MPa	ISO 178-A	255	170
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	3	4.5
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A		160
C Puncture maximum force	23 °C	N	ISO 6603-2	840	
C Puncture maximum force	-30 °C	N	ISO 6603-2	700	
C Puncture energy	23 °C	J	ISO 6603-2	3.1	
C Puncture energy	-30 °C	J	ISO 6603-2	2.3	
Thermal properties					
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	261	
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	240	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	250	
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10-4/K	ISO 11359-1,-2	0.1	
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10-4/K	ISO 11359-1,-2	1	
Electrical properties (23 °C/50 % r. h.)					
C Volume resistivity		Ohm · m	IEC 60093	1E+03	
Surface resistivity		Ohm	IEC 60167	1E+04	
Other properties (23 °C)					
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	5	
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	1.7	
C Density		kg/m³	ISO 1183	1300	
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	0.03-0.07	
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.

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.

LANXESS Corporation | Pittsburgh, PA 15275

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