LANXESS Energizing Chemistry

Durethan B30SF30 000000

PA 6, non-reinforced, injection molding, flame retardant, heat-aging stabilized

ISO Shortname: ISO 16396-PA 6,FR(17),GF2HR,S14-040

Property	Test Condition	Unit	Standard	guide value	
				d.a.m.	cond.
Rheological properties					
C Molding shrinkage, parallel	60x60x2; 260 °C / MT 80 °C; 600 bar	%	ISO 294-4	1.1	
C Molding shrinkage, transverse	60x60x2; 260 °C / MT 80 °C; 600 bar	%	ISO 294-4	1.1	
Post- shrinkage, parallel	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.4	
Post- shrinkage, transverse	60x60x2; 120 °C; 4 h	%	ISO 294-4	0.4	
Mechanical properties (23 °C/50 % r. h.)					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	3600	
C Yield stress	50 mm/min	MPa	ISO 527-1,-2	70	
C Yield strain	50 mm/min	%	ISO 527-1,-2	3,7	
C Nominal strain at break	50 mm/min	%	ISO 527-1,-2	9.0	
C Charpy impact strength	23 °C	kJ/m²	ISO 179-1eU	150	
C Charpy impact strength	-30 °C	kJ/m²	ISO 179-1eU	130	
C Charpy notched impact strength	23 °C	kJ/m²	ISO 179-1eA	<10	
C Charpy notched impact strength	-30 °C	kJ/m²	ISO 179-1eA	<10	
Izod impact strength	23 °C	kJ/m²	ISO 180-1U	120	
Izod impact strength	-30 °C	kJ/m²	ISO 180-1U	100	
Izod notched impact strength	23 °C	kJ/m²	ISO 180-1A	<10	
Izod notched impact strength	-30 °C	kJ/m²	ISO 180-1A	<10	
Flexural modulus	2 mm/min	MPa	ISO 178-A	3200	
Flexural strength	2 mm/min	MPa	ISO 178-A	110	
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	5.5	
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	100	
Thermal properties					
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	222	
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	70	
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	2.0 mm	Class	UL 94	5VA	
Glow wire test (GWFI)	0.75 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	
Glow wire test (GWIT)	0.4 mm	°C	IEC 60695-2-13	960	
Glow wire test (GWIT)	0.75 mm	°C	IEC 60695-2-13	900	
Glow wire test (GWIT)	1.5 mm	°C	IEC 60695-2-13	850	
Glow wire test (GWIT)	3.0 mm	°C	IEC 60695-2-13	800	
Electrical properties (23 °C/50 % r. h.)					
C Comparative tracking index CTI	Solution A	Rating	IEC 60112	275	
Other properties (23 °C)					
C Density		kg/m³	ISO 1183	1350	
Processing conditions for test specimens					
C Injection molding-Melt temperature		°C	ISO 294	260	
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	-	250-270	
admissible residence time at Tmax		min	-	<5	
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.

Disclaimer

Standard Disclaimer

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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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