Datasheet
Durethan 1100/30H2.0 901510

PA 6, 30% micro glass beads, injection molding, heat-aging stabilized, low tendency to warp, improved surface finish

ISO Shortname: ISO 16396-PA 6,GB30,GHR,S14-040

Property	Test Condition	Unit	Standard	guide value [1] d.a.m.	guide value [1] cond.
Rheological properties					
Molding shrinkage, parallel	150x105x3; 280 °C / MT 80 °C; 500 bar	%	acc. ISO 294-4	1.1	
Molding shrinkage, transverse	150x105x3; 280 °C / MT 80 °C; 500 bar	%	acc. ISO 294-4	1.1	
Post- shrinkage, parallel	150x105x3; 120 °C; 4 h	%	acc. ISO 294-4	0.3	
Post- shrinkage, transverse	150x105x3; 120 °C; 4 h	%	acc. ISO 294-4	0.3	
Mechanical properties (23 °C/50 % r. h.)					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	4400	1350
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	70	35
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	4.5	150
C Charpy impact strength	23 °C	kJ/m²	ISO 179-1eU	35	170
C Charpy impact strength	-30 °C	kJ/m²	ISO 179-1eU	30	30
C Charpy notched impact strength	23 °C	kJ/m²	ISO 179-1eA	<10	<10
C Charpy notched impact strength	-30 °C	kJ/m²	ISO 179-1eA	<10	<10
Izod impact strength	23 °C	kJ/m²	ISO 180-1U	30	170
Izod impact strength	-30 °C	kJ/m²	ISO 180-1U	30	25
Izod notched impact strength	23 °C	kJ/m²	ISO 180-1A	<10	<10
Izod notched impact strength	-30 °C	kJ/m²	ISO 180-1A	<10	<10
Flexural modulus	2 mm/min	MPa	ISO 178-A	4000	1200
Flexural strength	2 mm/min	MPa	ISO 178-A	120	45
Flexural strain at flexural strength	2 mm/min	%	ISO 178-A	5	7.5
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178-A	115	30
Ball indentation hardness		N/mm²	ISO 2039-1	175	65
Thermal properties					
C Melting temperature	10 °C/min	°C	ISO 11357-1,-3	220	
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	75	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	180	
C Temperature of deflection under load	8.00 MPa	°C	ISO 75-1,-2	50	
Vicat softening temperature	50 N; 120 °C/h	°C	ISO 306	205	
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10^{-4}/K	ISO 11359-1,-2	0.8	
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10^{-4}/K	ISO 11359-1,-2	0.8	
Burning behavior US-FMVSS302			ISO 3795	passed	
Other properties (23 °C)					
C Water absorption (Saturation value)	Water at 23 °C	%	ISO 62	7	

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Property	Test Condition	Unit	Standard	guide value [1] d.a.m.	guide value [1] cond.
C Water absorption (Equilibrium value)	23 °C; 50 % RH	%	ISO 62	2.2	
C Density		kg/m³	ISO 1183	1351	
Bulk density		kg/m³	ISO 60	800	
Processing conditions for test specimens					
C Injection molding-Melt temperature		°C	ISO 294	280	
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	-	270-290	
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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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.

Health and Safety

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling Envalior products mentioned in this publication. Before working with these products, you must read and become familiar with the available information on their hazards, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., material safety data sheets (MSDS) and product labels. Consult your Envalior representative or contact the Product Safety and Regulatory Affairs Department. For materials that are not Envalior products, appropriate industrial hygiene and other safety precautions recommended by their manufacturer(s) must be followed.

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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.