

Datasheet

Durethan BC30 000000

PA 6, non-reinforced, injection molding, improved impact strength

ISO Shortname: ISO 16396-PA 6-I,,GR,S14-030

Property	Test Condition	Unit	Standard	guide value ¹	
				dry as molded	conditioned
Mechanical properties (23 °C/50 % r. h.)					
Tensile modulus	1 mm/min	lb/in ²	ASTM D 638	406000	174000
Tensile stress at yield	-	lb/in ²	ASTM D 638	9400	5800
Tensile elongation at yield	-	%	ASTM D 638	4.0	20
Tensile elongation at break	-	%	ASTM D 638	50	> 50
Tensile stress at break	-	lb/in ²	ASTM D 638	10200	8000
Izod notched impact strength	73 °F; 0.125 in	ft-lb/in	ASTM D 256	1.7	18
Izod notched impact strength	-40 °F; 0.125 in	ft-lb/in	ASTM D 256	1.5	1.5
Flexural modulus	-	lb/in ²	ASTM D 790	319000	116000
Flexural stress at 5 % strain	-	lb/in ²	ASTM D 790	11600	3600
Thermal properties					
Deflection temperature under load, Unannealed	66 psi; 0.157 in	°F	ASTM D 648	329	
Deflection temperature under load, Unannealed	264 psi; 0.157 in	°F	ASTM D 648	149	
Other properties (23 °C)					
Density		lb/in ³	ASTM D 792	0.04	
Specific gravity		-	ASTM D 792	1.1	

Notes

¹ Typical properties: these are not to be construed as specifications

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Disclaimer

Disclaimer for commercial products

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Test values

Unless specified to the contrary, the values given have been established on standardized test specimens at room temperature. The figures should be regarded as guide values only and not as binding minimum values. Kindly note that, under certain conditions, the properties can be affected to a considerable extent by the design of the mould/die, the processing conditions and the coloring.

Processing note

Under the recommended processing conditions small quantities of decomposition product may be given off during processing. To preclude any risk to the health and well-being of the machine operatives, tolerance limits for the work environment must be ensured by the provision of efficient exhaust ventilation and fresh air at the workplace in accordance with the Safety Data Sheet. In order to prevent the partial decomposition of the polymer and the generation of volatile decomposition products, the prescribed processing temperatures should not be substantially exceeded. Since excessively high temperatures are generally the result of operator error or defects in the heating system, special care and controls are essential in these areas.

Conditioning

Conditioning in accordance with ISO 1110 (70 °C; 62 % r.h.)

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