Durethan DP BKV 45 901510

PA 6, injection molding grade, 45 % glass fibers

Property	Test Condition	Unit	Standard	Value d.a.m.	cond.
Mechanical properties (23 °C/50 % r. h.)					
C Tensile modulus	1 mm/min	MPa	ISO 527-1,-2	14000	
C Tensile Stress at break	5 mm/min	MPa	ISO 527-1,-2	212	
C Tensile Strain at break	5 mm/min	%	ISO 527-1,-2	3.0	
C Charpy impact strength	23 °C	kJ/m²	ISO 179-1eU	105	
C Charpy impact strength	-30 °C	kJ/m²	ISO 179-1eU	100	
C Charpy notched impact strength	23 °C	kJ/m²	ISO 179-1eA	15	
C Charpy notched impact strength	-30 °C	kJ/m²	ISO 179-1eA	14	
Izod impact strength	23 °C	kJ/m²	ISO 180-1U	95	
Izod impact strength	-30 °C	kJ/m²	ISO 180-1U	90	
Izod notched impact strength	23 °C	kJ/m²	ISO 180-1A	17	
Izod notched impact strength	-30 °C	kJ/m²	ISO 180-1A	15	
Flexural modulus	2 mm/min	MPa	ISO 178	13000	
Flexural strength	2 mm/min	MPa	ISO 178	330	
Flexural strain at flexural strength	2 mm/min	%	ISO 178	3.5	
Flexural stress at 3.5 % strain	2 mm/min	MPa	ISO 178	325	
Thermal properties					
C Temperature of deflection under load	1.80 MPa	°C	ISO 75-1,-2	210	
C Temperature of deflection under load	0.45 MPa	°C	ISO 75-1,-2	220	
C Temperature of deflection under load	8.00 MPa	°C	ISO 75-1,-2	180	
C Coefficient of linear thermal expansion, parallel	23 to 55 °C	10^{-4}/K	ISO 11359-1,-2	0.2	
C Coefficient of linear thermal expansion, transverse	23 to 55 °C	10^{-4}/K	ISO 11359-1,-2	0.9	
Other properties (23 °C)					
C Density		kg/m³	ISO 1183	1510	
Glass fiber / glass bead / filler content		%	ISO 3451-1	45	
Processing conditions for test specimens					
C Injection molding-Melt temperature		°C	ISO 294	280	
C Injection molding-Mold temperature		°C	ISO 294	80	

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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Disclaimer

Disclaimer for developmental products

This is a developmental product. Further information, including amended or supplementary data on hazards associated with its use, may be compiled in the future. For this reason no assurances are given as to type conformity, processability, long-term performance characteristics or other production or application parameters. Therefore, the purchaser/user uses the product entirely at his own risk without having been given any warranty or guarantee and agrees that the supplier shall not be liable for any damages, of whatever nature, arising out of such use. Commercialization and continued supply of this material are not assured. Its supply may be discontinued at any time. Our products are sold and our advisory service is given in accordance with the current version of our General Conditions of Sale and Delivery.

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 colouring.

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.

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