AKROMID®

B3 GF 45 1 black (3851)

PA6 GF45

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Datasheet

Description

AKROMID B3 GF 45 1 black (3851) is a 45% glass fiber reinforced, heat stabilized polyamide 6 with very high rigidity and strength

Applications

Applications are mainly components in mechanical engineering and in the automotive industry and highly stressed parts in the sports and leisure industry

Typical values	Test specification	Method	Unit	Value	
				d.a.m.	moist.*
Mechanical Properties					
Tensile modulus	1 mm/min	ISO 527-2	MPa	14500	8500
Tensile stress at break	5 mm/min	ISO 527-2	MPa	200	140
Elongation at break	5 mm/min	ISO 527-2	%	4,5	8,5
Flexural modulus	2 mm/min	ISO 178	MPa	13000	7500
Flexural strength	2 mm/min	ISO 178	MPa	315	200
Flexural strain at break	2 mm/min	ISO 178	%	4,5	6,7
Charpy impact strength	23°C	ISO 179-1/1eU	kJ/m²	110	108
Charpy impact strength	-30°C	ISO 179-1/1eU	kJ/m²	95	108
Charpy notched impact strength	23°C	ISO 179-1/1eA	kJ/m²	20	25
Charpy notched impact strength	-30°C	ISO 179-1/1eA	kJ/m²	16	15
Thermal Properties				d.a.m.	
Melting Point	DSC, 10K/min	DIN EN 11357-1	°C	220	
Heat distortion temperature HDT/A	1,8 MPa	ISO 75	°C	200	
Heat distortion temperature HDT/B	0,45 MPa	ISO 75	°C	220	
Heat distortion temperature HDT/C	8 MPa	ISO 75	°C	145	
Flammability					
Burning rate (< 100 mm/min)	> 1 mm thickness	FMVSS 302	mm/min	+	
General Properties					
Density	23°C	ISO 1183	g/cm³	1,50	
Content reinforcement		ISO 1172	%	45	
Processing					
Molding shrinkage	flow	ISO 294-4	%	0,3	
Molding shrinkage	transverse	ISO 294-4	%	0,8	

* moist. = specimen acc. ISO 1110 stored

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