

AKROMID® B3 GF 50 1 black (2488)

Polyamide 6
AKRO-PLASTIC GmbH

Message:

AKROMID® B3 GF 50 1 black (2488) is a 50% glass fibre reinforced, heat ageing resistant polyamide 6 with very high rigidity and strength and light inherent color, UL listed.

Applications are mainly components in mechanical engineering and in the automotive industry

General Information				
UL YellowCard		E148915-101075626		
Filler / Reinforcement		Glass Fiber,50% Filler by Weight		
Features		Good Heat Aging Resistance		
		High Rigidity		
		High Strength		
Uses		Engineered Applications		
Appearance		Black		
Resin ID (ISO 1043)		PA6 GF50		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.56	--	g/cm ³	ISO 1183
Spiral Flow	43.0	--	cm	Internal Method
Molding Shrinkage				ISO 294-4
Across Flow	0.90	--	%	
Flow	0.20	--	%	
Water Absorption (Saturation, 23°C)	4.5 to 5.1	--	%	ISO 62
Humidity Absorption - 62% RH (70°C)	1.3 to 1.6	--	%	ISO 1110
Temperature Index				IEC 216
50% Loss of Tensile Strength, 20000 hr	130 to 150	--	°C	
50% Loss of Tensile Strength, 5000 hr	160 to 175	--	°C	
Reinforcement Content	50	--	%	ISO 1172
Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness (H 961/30)	270	--	MPa	ISO 2039-1
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	17000	10300	MPa	ISO 527-2/1
Tensile Stress (Break)	230	145	MPa	ISO 527-2/5
Tensile Strain (Break)	2.5	4.5	%	ISO 527-2/5
Flexural Modulus ¹	14900	--	MPa	ISO 178

Flexural Stress ²	340	--	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	16	--	kJ/m ²	
23°C	20	26	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	90	--	kJ/m ²	
23°C	100	110	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	220	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	220	--	°C	ISO 75-2/A
8.0 MPa, Unannealed	185	--	°C	ISO 75-2/C
Melting Temperature ³	220	--	°C	DIN EN 11357-1
CLTE				ISO 11359-2
Flow : 23 to 80°C	1.1E-5	--	cm/cm/°C	
Transverse : 23 to 80°C	9.4E-5	--	cm/cm/°C	
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+12	1.0E+10	ohms	IEC 60093
Volume Resistivity	1.0E+13	1.0E+10	ohms·cm	IEC 60093
Comparative Tracking Index (Solution A)	600	--	V	IEC 60112
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate ⁴ (1.00 mm)	< 100	--	mm/min	FMVSS 302
Flame Rating (0.800 mm)	HB	--		UL 94
Glow Wire Flammability Index (1.60 mm)	650	--	°C	IEC 60695-2-12
NOTE				
1.	2.0 mm/min			
2.	2.0 mm/min			
3.	10 K/min, DSC			
4.	>1 mm			

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