

AKROMID® A3 ICF 20 black (5102)

Polyamide 66
AKRO-PLASTIC GmbH

Message:

AKROMID® A3 ICF 20 black (5102) is a 20% carbon fibre reinforced polyamide 6.6 with high flexural strength and good sliding properties
Applications are mechanically high stressed parts in all industries

General Information				
Filler / Reinforcement		Carbon Fiber,20% Filler by Weight		
Features		High Strength		
Appearance		Black		
Resin ID (ISO 1043)		PA66 CF20		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.23	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	0.80	--	%	
Flow	0.25	--	%	
Humidity Absorption - 62% RH (70°C)	2.3	--	%	ISO 1110
Flexural Strain at Break ¹	3.0	--	%	ISO 178
Reinforcement Content	20	--	%	ISO 1172
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	16000	10400	MPa	ISO 527-2/1
Tensile Stress (Break)	190	135	MPa	ISO 527-2/5
Tensile Strain (Break)	2.5	4.0	%	ISO 527-2/5
Flexural Modulus ²	14000	--	MPa	ISO 178
Flexural Stress ³	280	--	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	4.0	--	kJ/m ²	
23°C	6.0	8.0	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	42	--	kJ/m ²	
23°C	50	60	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	250	--	°C	ISO 75-2/A
Melting Temperature ⁴	262	--	°C	DIN EN 11357-1
Thermal Conductivity	0.34	--	W/m/K	DIN 52612

Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+4	1.0E+4	ohms	IEC 60093
Flammability	Dry	Conditioned	Unit	Test Method
Flame Rating (1.60 mm)	HB	--		UL 94
NOTE				
1.	2 mm/min			
2.	2.0 mm/min			
3.	2.0 mm/min			
4.	10 K/min, DSC			

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Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

