

AKROMID® A3 ICF 40 black (5116)

Polyamide 66

AKRO-PLASTIC GmbH

Message:

AKROMID® A3 ICF 40 black (5116) is a 40% 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,40% Filler by Weight		
Features		High Strength		
Appearance		Black		
Resin ID (ISO 1043)		PA66 CF40		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.34	--	g/cm ³	ISO 1183
Spiral Flow	36.0	--	cm	Internal Method
Molding Shrinkage				ISO 294-4
Across Flow	0.70	--	%	
Flow	0.20	--	%	
Humidity Absorption - 62% RH (70°C)	1.5	--	%	ISO 1110
Flexural Strain at Break ¹	1.8	2.5	%	ISO 178
Reinforcement Content	40	--	%	ISO 1172
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	33000	20000	MPa	ISO 527-2/1
Tensile Stress (Break)	270	200	MPa	ISO 527-2/5
Tensile Strain (Break)	1.5	2.5	%	ISO 527-2/5
Flexural Modulus ²	30000	22000	MPa	ISO 178
Flexural Stress ³	370	300	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	7.0	--	kJ/m ²	
23°C	9.0	12	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	55	--	kJ/m ²	
23°C	60	67	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature (1.8 MPa, Unannealed)	255	--	°C	ISO 75-2/A
Melting Temperature ⁴	262	--	°C	DIN EN 11357-1

Thermal Conductivity	0.47	--	W/m/K	DIN 52612
Electrical	Dry	Conditioned	Unit	Test Method
Surface Resistivity	1.0E+3	1.0E+3	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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