

AKROMID® A3 GF 40 1 natural (2381)

Polyamide 66
AKRO-PLASTIC GmbH

Message:

AKROMID® A3 GF 40 1 natural (2381) is a 40% glass fibre reinforced, heat stabilised polyamide 6.6 with 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		E148915-101075625		
Filler / Reinforcement		Glass Fiber,40% Filler by Weight		
Additive		Heat Stabilizer		
Features		Heat Stabilized		
		High Rigidity		
		High Strength		
Uses		Engineered Applications		
Appearance		Natural Color		
Resin ID (ISO 1043)		PA66 GF40		
Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.46	--	g/cm ³	ISO 1183
Spiral Flow	72.0	--	cm	Internal Method
Molding Shrinkage				ISO 294-4
Across Flow	1.2	--	%	
Flow	0.20	--	%	
Water Absorption (Saturation, 23°C)	4.3 to 4.7	--	%	ISO 62
Humidity Absorption - 62% RH (70°C)	1.7 to 1.9	--	%	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	40	--	%	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	13100	9800	MPa	ISO 527-2/1
Tensile Stress (Break)	225	160	MPa	ISO 527-2/5
Tensile Strain (Break)	3.0	4.0	%	ISO 527-2/5

Flexural Modulus ¹	12000	--	MPa	ISO 178
Flexural Stress ²	360	--	MPa	ISO 178
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-30°C	15	--	kJ/m ²	
23°C	17	20	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-30°C	95	--	kJ/m ²	
23°C	100	110	kJ/m ²	
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	260	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	260	--	°C	ISO 75-2/A
8.0 MPa, Unannealed	225	--	°C	ISO 75-2/C
Melting Temperature ³	262	--	°C	DIN EN 11357-1
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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