

AKROMID® A3 GF 50 1 black (2387)

Polyamide 66

AKRO-PLASTIC GmbH

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

AKROMID® A3 GF 50 1 black (2387) is a 50% glass fibre reinforced, heat stabilised polyamide 6.6 with very high rigidity and strength

Components in mechanical engineering and in the automotive industry

General

Material Status	• Commercial: Active
UL Yellow Card ¹	• E148915-101075625
Search for UL Yellow Card	• AKRO-PLASTIC GmbH • AKROMID®
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber, 50% Filler by Weight
Additive	• Heat Stabilizer
Features	• Heat Stabilized • High Stiffness • High Strength
Uses	• Automotive Applications • Engineering Parts
Resin ID (ISO 1043)	• PA66 GF50

Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.57	--	g/cm ³	ISO 1183
Spiral Flow ³	60.0	--	cm	Internal Method
Molding Shrinkage				ISO 294-4
Across Flow	0.50 to 0.70	--	%	
Flow	0.10 to 0.30	--	%	
Water Absorption (Saturation, 23°C)	3.7 to 4.3	--	%	ISO 62
Humidity Absorption - 62% RH (70°C)	1.3 to 1.5	--	%	ISO 1110

Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	16700	12600	MPa	ISO 527-2/1
Tensile Stress (Break)	250	180	MPa	ISO 527-2/5
Tensile Strain (Break)	2.5	3.5	%	ISO 527-2/5
Flexural Modulus ⁴	15200	13600	MPa	ISO 178
Flexural Stress ⁴	380	310	MPa	ISO 178

Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength				ISO 179/1eA
-45°C	15	15	kJ/m ²	
-30°C	16	--	kJ/m ²	
23°C	19	23	kJ/m ²	
Charpy Unnotched Impact Strength				ISO 179/1eU
-45°C	90	90	kJ/m ²	
-30°C	110	--	kJ/m ²	
23°C	110	110	kJ/m ²	

Hardness	Dry	Conditioned	Unit	Test Method
Ball Indentation Hardness (H 961/30)	290	--	MPa	ISO 2039-1



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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	235	--	°C	ISO 75-2/C
Melting Temperature ⁵	262	--	°C	DIN EN 11357-1
CLTE				ISO 11359-2
Flow : 23 to 80°C	1.7E-5	--	cm/cm/°C	
Transverse : 23 to 80°C	8.8E-5	--	cm/cm/°C	
Temperature Index				IEC 60216
50% Loss of Tensile Strength, 20000 hr	130 to 150	--	°C	
50% Loss of Tensile Strength, 5000 hr	160 to 175	--	°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 ⁶ (1.00 mm)	< 100	--	mm/min	FMVSS 302
Flame Rating (0.8 mm)	HB	--		UL 94
Glow Wire Flammability Index (1.6 mm)	650	--	°C	IEC 60695-2-12
Additional Information	Dry	Conditioned	Unit	Test Method
Flowability				Internal Method
1.00 mm ⁷	200	--	mm	
2.00 mm ⁸	350	--	mm	
Reinforcement Content	50	--	%	ISO 1172

Notes

¹ A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

² Typical properties: these are not to be construed as specifications.

³ cross section of flow spiral: 7 mm x 3.5 mm

⁴ 2.0 mm/min

⁵ 10°C/min

⁶ >1 mm

⁷ 8.4 x 1 mm

⁸ 8.4 x 2 mm



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Where to Buy

Supplier

AKRO-PLASTIC GmbH

, Germany

Telephone: +49-2636-9742-0

Web: <http://www.akro-plastic.com/>

Distributor

Please contact the supplier to find a distributor for AKROMID® A3 GF 50 1 black (2387)

