

AKROMID® A3 1 FR black (3051)

Polyamide 66

AKRO-PLASTIC GmbH

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

AKROMID® A3 1 FR black (3051) is an unreinforced, heat stabilised, halogen- free flame retardant polyamide 6.6

Switch parts and housings in the electric industry

General

Material Status	• Commercial: Active
UL Yellow Card ¹	• E148915-100062007
Search for UL Yellow Card	• AKRO-PLASTIC GmbH • AKROMID®
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Additive	• Flame Retardant • Heat Stabilizer
Features	• Flame Retardant • Halogen Free • Heat Stabilized
Uses	• Electrical/Electronic Applications • Housings • Switches
Appearance	• Black
Resin ID (ISO 1043)	• PA66 FR

Physical	Dry	Conditioned	Unit	Test Method
Density (23°C)	1.18	--	g/cm ³	ISO 1183
Molding Shrinkage				ISO 294-4
Across Flow	1.3 to 1.6	--	%	
Flow	1.3 to 1.6	--	%	
Mechanical	Dry	Conditioned	Unit	Test Method
Tensile Modulus	3500	1500	MPa	ISO 527-2/1
Tensile Stress (Yield)	83.0	55.0	MPa	ISO 527-2/50
Tensile Strain (Break)	> 5.0	> 20	%	ISO 527-2/50
Impact	Dry	Conditioned	Unit	Test Method
Charpy Notched Impact Strength (23°C)	4.5	7.0	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength (23°C)	70 kJ/m ²	No Break		ISO 179/1eU
Thermal	Dry	Conditioned	Unit	Test Method
Heat Deflection Temperature				
0.45 MPa, Unannealed	220	--	°C	ISO 75-2/B
1.8 MPa, Unannealed	80.0	--	°C	ISO 75-2/A
Melting Temperature ³	260	--	°C	DIN EN 11357-1
Electrical	Dry	Conditioned	Unit	Test Method
Comparative Tracking Index (Solution A)	> 600	--	V	IEC 60112
High Amp Arc Ignition (HAI) (0.8 mm)	PLC 0	--		UL 746
Hot-wire Ignition (HWI) (0.8 mm)	PLC 4	--		UL 746
Flammability	Dry	Conditioned	Unit	Test Method
Burning Rate ⁴ (1.00 mm)	< 100	--	mm/min	FMVSS 302
Flame Rating				UL 94
0.40 mm	V-0	--		
0.8 mm	V-0	--		
1.6 mm	V-0	--		
3.2 mm	V-0	--		
Glow Wire Flammability Index				IEC 60695-2-12
0.40 mm	960	--	°C	
0.8 mm	960	--	°C	
1.6 mm	960	--	°C	
3.2 mm	960	--	°C	



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Flammability	Dry	Conditioned	Unit	Test Method
Glow Wire Ignition Temperature				IEC 60695-2-13
0.40 mm	775	--	°C	
0.8 mm	750	--	°C	
1.6 mm	750	--	°C	
3.2 mm	775	--	°C	
Oxygen Index	> 32	--	%	ISO 4589-2

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 10°C/min

⁴ >1 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 1 FR black (3051)

