+135-3858-6433 (GuangDong)
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AKRO COMPOUNDS

Compound No.: **8102**

AKROMID®

A3 GF 30 8 HU natural (8102)

PA66 GF30

AKROMID® A3 GF 30 8 HU natural (8102) is a 30% glass fibre reinforced, heat ageing resistant polyamide 6.6 with high rigidity and strength.This UL94 HB all colors listed grade is suitable for technical components in household appliances and mechanical engineering. This grade is listed according to KTW-BWGL, NSF61 and WRAS and complies to the EU10/2011 requirements. It doesn´t meet the FDA requirements.

Features

heat stabilised 130

Regulatory

Properties

Modulus	Strength	Impact
10.500 MPa	**200** MPa	**75** kJ/m²

Mechanical Properties

Tensile modulus ISO 527-2	1 mm/min | d.a.m. 1 mm/min | conditioned	**10500 MPa** **7500 MPa**
Tensile stress at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**200 MPa** **130 MPa**
Tensile strain at break ISO 527-2	5 mm/min | d.a.m. 5 mm/min | conditioned	**3 %** **6 %**
Charpy impact strength ISO 179-1/1eU	23°C | d.a.m. 23°C | conditioned	**75 kJ/m²** **83 kJ/m²**
Charpy notched impact strength ISO 179-1/1eA	23°C | d.a.m. 23°C | conditioned	**12 kJ/m²** **16 kJ/m²**
UV Exposure and Water Immersion UL 746C	UL	**f2**

Thermal Properties

RTI electrical UL 746B	UL 0,4mm Wall thickness	125 °C
	UL 0,8mm Wall thickness	125 °C
	UL 1,6mm Wall thickness	130 °C
	UL 3,2mm Wall thickness	130 °C
RTI impact UL 746B	UL 0,8mm Wall thickness	120 °C
	UL 1,6mm Wall thickness	120 °C
	UL 3,2mm Wall thickness	120 °C
RTI strength UL 746B	UL 0,8mm Wall thickness	130 °C
	UL 1,6mm Wall thickness	130 °C
	UL 3,2mm Wall thickness	130 °C
Temperature of deflection under load HDT/A ISO 75	1,8 MPa	255 °C
Temperature of deflection under load HDT/B ISO 75	0,45 MPa	260 °C
Temperature of deflection under load HDT/C ISO 75	8 MPa	210 °C
Melting temperature ISO 11357-3	DSC, 10K/min	262 °C
Temperature index for 50% loss of tensile strength IEC 60216	5.000 h	150 - 160 °C
	20.000 h	120 - 130 °C

Flammability

Flammability UL 94	UL 0,8 mm Wall thickness	HB Class
	UL 1,6 mm Wall thickness	HB Class
	UL 3,2 mm Wall thickness	HB Class
HWI UL 746A	UL 0,4 mm Wall thickness	4 PLC
	UL 0,8 mm Wall thickness	4 PLC
	UL 1,6 mm Wall thickness	4 PLC
	UL 3,2 mm Wall thickness	4 PLC
HAI UL 746A	UL 0,4 mm Wall thickness	0 PLC
	UL 0,8 mm Wall thickness	0 PLC
	UL 1,6 mm Wall thickness	0 PLC
	UL 3,2 mm Wall thickness	0 PLC
Burning rate (<100 mm/min) FMVSS 302	> 1 mm Thickness	+

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General Properties

Density ISO 1183	23°C	**1,35 g/cm³**
Humidity absorption ISO 1110	70°C, 62% r.H.	**1,9 - 2,1 %**
Molding shrinkage ISO 294-4	flow transverse	**0,1 - 0,3 %** **0,7 - 0,9 %**

Electrical Properties

Volume resistivity IEC 62631-3-1	UL d.a.m.	**10^{11} Ω x cm**
Comparative tracking index IEC 60112	UL Test liquid A	**600 V**
Comparative tracking index ASTM D3638	UL	**0 PLC**
Dielectric strength IEC 60243	UL 3 mm	**12 kV/mm**
High voltage arc tracking rate (HVTR) UL 746A	UL	**1 PLC**
High Volt, Low Current Arc Resistance ASTM D495	UL	**5 PLC**

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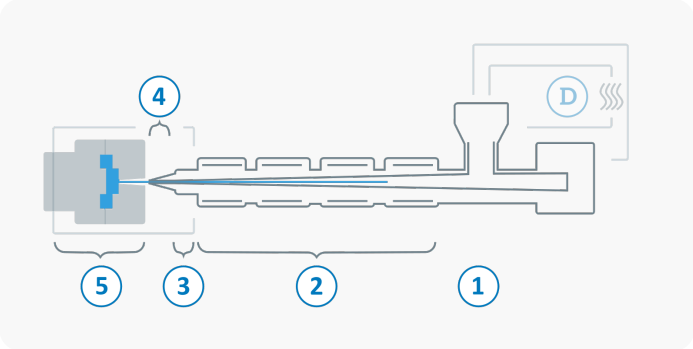
Processing

The values mentioned are recommendations. We only recommend desiccant / dry air dryers or vacuum dryers. Too long a drying time and the resulting residual moisture content below the lower limit can lead to filling problems and surface defects. The specified drying time refers to closed and undamaged bagged material. When processing from previously opened bags or from octabins with polyolefin inliners, a longer drying time may be necessary. It is recommended to check the residual moisture content after the drying process.



D	Drying time	0 - 4 h
	Drying temperature (τ <= -30°C)	80 °C
	Processing moisture	0,02 - 0,1 %
1	Feed section	60 - 80 °C
2	Temperature Zone 1 - Zone 4	260 - 300 °C
3	Nozzle temperature	270 - 310 °C
4	Melt temperature	280 - 300 °C
5	Mold temperature	80 - 100 °C
→	Holding pressure, spec.	300 - 800 bar
←	Back pressure, spec.	50 - 150 bar
	Injection speed	medium to high
	Screw speed	8 - 15 m/min

Diagrams