

Akro-Plastic Akromid® B3 GF 50 RM-M (3146) PA 6 Dry, 50% Glass Filled

Category : Polymer , Thermoplastic , Nylon , Nylon 6 , Nylon 6, 50% Glass Fiber Filled

Material Notes:

In all, the construction relevant features show that the significantly reduced moisture absorption of AKROMID B3 GF 30 RM leads to increasing rigidities and strengths as already expected. Nevertheless, the viscosity features are on the level of PA6. Especially after storage, e.g. at 150° AKROMID RM shows comparable ageing characteristics. For appliances with very constant features, low warpage, very good finish together with an improved chemical resistance and for production of parts according to the GIT/WIT process, the version B3 GF 30 RM 9 black (3099) or respectively B3 GF 50 9 RM black (3147) offers an ideal solution. However, if a very good impact strength is predominant, our type B3 GF 30 RM black (3016) or respectively B3 GF 50 RM black (3146) will be favored. High quality surface finish: B3 GF 30 9 RM black (3099)/B3 GF 50 9 RM black (3147) Very constant features with regard to climate Very low warpage Very good surface CaCl₂ resistant Cost-effective: B3 GF 30 RM black (3016)/B3 GF 50 RM black (3146) Closer to PA 6 GF 30/GF 50 Constant features with regard to climate Low warpage Tendentious higher impact strength Tendentious higher notched impact Applications: Electronic market: e.g. sensor housings, coil former (wo. UL), plug-in connectors, plug panels etc. Automobile market: e.g. sensor housing, electrical parts, wind screen wiper bows, door handles, mirror elements, sliding roof frames etc. General mechanical engineering: e.g. control elements in printer, copier, housings of valves, pumps etc. Information from Akro-Plastic

Order this product through the following link:

http://www.lookpolymers.com/polymer_Akro-Plastic-Akromid-B3-GF-50-RM-M-3146-PA-6-Dry-50-Glass-Filled.php

Physical Properties	Metric	English	Comments
Density	1.62 g/cc	0.0585 lb/in ³	ISO 1183
Filler Content	50 %	50 %	ISO 1172
Water Absorption	1.2 % @Temperature 70.0 °C	1.2 % @Temperature 158 °F	62% RH, Humidity
Linear Mold Shrinkage, Flow	0.0040 cm/cm	0.0040 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.0070 cm/cm	0.0070 in/in	ISO 294-4
Spiral Flow	50.0 cm	19.7 in	7 x 4 [mm] diameter

Mechanical Properties	Metric	English	Comments
Ball Indentation Hardness	280 MPa	40600 psi	H 961/30; ISO 2039-1
Tensile Strength at Break	210 MPa	30500 psi	5 [mm/min]; ISO 527-2/5
Elongation at Break	2.2 %	2.2 %	5 [mm/min]; ISO 527-2/5
Tensile Modulus	17.0 GPa	2470 ksi	1 [mm/min]; ISO 527-2/1
Flexural Strength	320 MPa	46400 psi	2 [mm/min]; ISO 178
Flexural Modulus	17.0 GPa	2470 ksi	2 [mm/min]; ISO 178

Mechanical Properties	Metric	English	Comments
Charpy Impact Unnotched	@Temperature -30.0 °C	@Temperature -22.0 °F	ISO 179/1eU
	7.00 J/cm ²	33.3 ft-lb/in ²	ISO 179/1eU
Charpy Impact, Notched	@Temperature 23.0 °C	@Temperature 73.4 °F	ISO 179/1eA
	1.50 J/cm ²	7.14 ft-lb/in ²	ISO 179/1eA
	@Temperature -30.0 °C	@Temperature -22.0 °F	ISO 179/1eA
	2.00 J/cm ²	9.52 ft-lb/in ²	ISO 179/1eA
	@Temperature 23.0 °C	@Temperature 73.4 °F	ISO 179/1eA

Thermal Properties	Metric	English	Comments
Melting Point	225 °C	437 °F	DIN EN 11357-1
Deflection Temperature at 1.8 MPa (264 psi)	215 °C	419 °F	Unannealed; ISO 75-2/A
Deflection Temperature at 8.0 MPa	165 °C	329 °F	Unannealed; ISO 75-2/C
Flammability, UL94	HB	HB	
	@Thickness 0.800 mm	@Thickness 0.0315 in	

Electrical Properties	Metric	English	Comments
Comparative Tracking Index	600 V	600 V	IEC 60112

Processing Properties	Metric	English	Comments
Feed Temperature	60.0 - 80.0 °C	140 - 176 °F	
Nozzle Temperature	240 - 280 °C	464 - 536 °F	
Zone 1	225 - 300 °C	437 - 572 °F	
Zone 2	225 - 300 °C	437 - 572 °F	
Zone 3	225 - 300 °C	437 - 572 °F	
Zone 4	225 - 300 °C	437 - 572 °F	
Melt Temperature	260 - 300 °C	500 - 572 °F	
Mold Temperature	80.0 - 100 °C	176 - 212 °F	
Drying Temperature	80.0 °C	176 °F	
Dry Time	4.00 - 12.0 hour	4.00 - 12.0 hour	

Hold Pressure Processing Properties	75.0 MPa Metric	10900 psi English	Comments
Back Pressure	5.00 - 10.0 MPa	725 - 1450 psi	

Descriptive Properties	Value	Comments
Acetone	Pass	100% Conc
Benzene	Pass	100% Conc
Benzol	Pass	100% Conc
Biodiesel	Pass	50°C, 100% Conc
Brake Fluid (DOT4)	Fail	130°C, 100% Conc
	Pass	100% Conc
Calcium chloride, alcoholic	Fail	10% Conc
	Pass	10% Conc, when surface treated with 4 (chemical-stabilized)
Calcium chloride, aqueous	Fail	10% Conc
	Pass	10% Conc, when surface treated with 4 (chemical-stabilized)
Citric acid	Pass	100% Conc
Diesel fuel (DIN 51601)	Pass	100% Conc
Sulphuric acid	Fail	96% Conc
Toluene	Pass	100% Conc
Water	Pass	100% Conc
Zinc chloride, aqueous	Fail	50% Conc

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