

## Akro-Plastic Akromid® T1 GF 50 (3101) PPA Conditioned, 50% Glass Filled

Category : Polymer , Thermoplastic , Polyphthalamide (PPA) , Polyphthalamide (PPA), 50% Glass Fiber Reinforced

### Material Notes:

The new AKROMID® T is characterized primarily by high heat resistance and the lowest moisture absorption of the three PA grades, making it particularly well-suited in the automotive sector for high-temperature applications in the engine compartment and in machine building for components subjected to high mechanical loads. It easily maintains its high initial stability even at temperatures of up to 140 °C and still exhibits phenomenal creep behaviour. This extremely high dimensional stability is further enhanced by the product's low moisture absorption. Another key advantage over PA 6 or PA 6.6 is the significantly improved chemical resistance and high resistance to hydrolytic degradation. These properties – along with the aforementioned advantages in terms of mechanical loading – make the material an ideal answer for difficult applications in industrial pumps and fluid filters. Its low water absorption over extended periods is yet another advantage. By modifying the base grades, we have also made the material suitable for applications requiring a high quality surface finish.

**Applications:**

**Automotive Sector:** Cooling system (thermostat housing, connectors, etc.) Parts in the oil circuit (tensioner bases, etc.) Parts in the brake system (valve bodies, etc.) Clutch components (central clutch release bearing, etc.) Air ducting parts (side pieces for charge-air coolers, control shafts, etc.) Parts subjected to high loads in the interior (centre armrest, etc.)

**Electrical Engineering:** Mobile telephone parts (chip carrier, etc.) Coil formers Motor parts (brush holders, etc.) Plugs and connectors Bulb and LED sockets

**Industry and Household:** Heating systems (fan housings, etc.) Components for coffee machines (grades compliant with KTW- German recommendation for polymers in drinking-water systems) Water counters and water filters (KTW-compliant, hot water) Pump systems (misc. functional parts)

Information from Akro-Plastic

Order this product through the following link:

[http://www.lookpolymers.com/polymer\\_Akro-Plastic-Akromid-T1-GF-50-3101-PPA-Conditioned-50-Glass-Filled.php](http://www.lookpolymers.com/polymer_Akro-Plastic-Akromid-T1-GF-50-3101-PPA-Conditioned-50-Glass-Filled.php)

Physical Properties	Metric	English	Comments
Density	1.62 g/cc	0.0585 lb/in <sup>3</sup>	ISO 1183
Filler Content	50 %	50 %	ISO 1172
Water Absorption	0.85 % @Temperature 70.0 °C	0.85 % @Temperature 158 °F	62% r.h., Humidity; ISO 62
Linear Mold Shrinkage, Flow	0.0030 cm/cm	0.0030 in/in	ISO 294-4
Linear Mold Shrinkage, Transverse	0.0070 cm/cm	0.0070 in/in	ISO 294-4

Mechanical Properties	Metric	English	Comments
Tensile Strength at Break	255 MPa	37000 psi	5 [mm/min]; ISO 527-1/2
Elongation at Break	2.0 %	2.0 %	5 [mm/min]; ISO 527-1/2
Tensile Modulus	20.0 GPa	2900 ksi	1 [mm/min]; ISO 527-1/2
Charpy Impact Unnotched	8.50 J/cm <sup>2</sup> @Temperature 23.0 °C	40.4 ft-lb/in <sup>2</sup> @Temperature 73.4 °F	ISO 179/1eU

Mechanical Properties	Metric	English	Comments
Thermal Properties	Metric	English	Comments
Melting Point	313 °C	595 °F	ISO 11357-1, DSC,10 [K/min]

Descriptive Properties	Value	Comments
Drying, Moisture (%)	<0.1	
Injection Speed	average to high	

## Contact Songhan Plastic Technology Co.,Ltd.

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