

**PlusTek PAT302G50BK10**

PA\*-GF50

Polyram

**Product Texts**

PLUSTEK PAT302G50BK10 is Black, 50% Glass Fiber Reinforced semi-crystalline Polyamide with partially aromatic copolyamide Injection Molding Applications such as: Irrigation, Automotive, Consumer Goods.

<b>Processing/Physical Characteristics</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Melt flow index, MFI	<b>15</b>	g/10min	ISO 1133
Temperature	<b>280</b>	°C	-
Load	<b>5</b>	kg	-
Molding shrinkage, parallel	<b>0.1 / *</b>	%	ISO 294-4, 2577
Molding shrinkage, normal	<b>0.2 / *</b>	%	ISO 294-4, 2577

<b>Mechanical properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Tensile Modulus	<b>18200 / 15700</b>	MPa	ISO 527
Tensile Strength	<b>252 / 215</b>	MPa	ISO 527
Strain at break	<b>2.45 / 2.9</b>	%	ISO 527
Flexural modulus, 23°C	<b>17000 / -</b>	MPa	ISO 178
Flexural strength	<b>410 / -</b>	MPa	ISO 178
Charpy notched impact strength, +23°C	<b>15.5 / -</b>	kJ/m <sup>2</sup>	ISO 179/1eA
Charpy notched impact strength, -30°C	<b>11 / -</b>	kJ/m <sup>2</sup>	ISO 179/1eA
Izod notched impact strength, +23°C	<b>19 / 17</b>	kJ/m <sup>2</sup>	ISO 180/1A
<b>ASTM Data</b>			
Shore D Hardness	<b>85 / -</b>	-	ASTM D 2240

<b>Thermal properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
<b>ISO Data</b>			
Melting temperature, 10°C/min	<b>260 / *</b>	°C	ISO 11357-1/-3
Temp. of deflection under load, 1.80 MPa	<b>215 / *</b>	°C	ISO 75-1/-2
Temp. of deflection under load, 0.45 MPa	<b>240 / *</b>	°C	ISO 75-1/-2
Burning rate, FMVSS, Thickness 1 mm	<b>100</b>	mm/min	ISO 3795 (FMVSS 302)
<b>ASTM Data</b>			
UL 94 Flame rating	<b>HB</b>	-	UL 94
Thickness tested	<b>3</b>	mm	-

<b>Other properties</b>	<b>dry / cond</b>	<b>Unit</b>	<b>Test Standard</b>
Water absorption	<b>3 / *</b>	%	Sim. to ISO 62
Humidity absorption	<b>1.4 / *</b>	%	Sim. to ISO 62
Density	<b>1570 / -</b>	kg/m <sup>3</sup>	ISO 1183

<b>Processing Recommendation Injection Molding</b>	<b>Value</b>	<b>Unit</b>	<b>Test Standard</b>
Pre-drying - Temperature	<b>80</b>	°C	-
Pre-drying - Time	<b>4 - 12</b>	h	-
Processing humidity	<b>≤0.1</b>	%	-
Mold temperature	<b>80 - 140</b>	°C	-
Feed temperature	<b>60 - 70</b>	°C	-
Zone 1	<b>290 - 300</b>	°C	-
Zone 2	<b>290 - 300</b>	°C	-
Zone 3	<b>290 - 300</b>	°C	-

**Characteristics****Processing**

Injection Molding

**Delivery form**

Black

**Applications**

Automotive

**Regional Availability**

North America, Europe, Asia Pacific, South and Central America, Near East/Africa

**Certifications**

RoHS compliant