

# PA 605-A

A 50% aluminum filled Nylon 12 with excellent strength and surface feature detail with good heat transfer characteristics.

POWDER PROPERTIES	TEST METHOD	PA 605-A
Bulk Density	ASTM D1895	0.67 grams/CC
Average Particle Size (D50)	Laser Diffraction	55 microns
Particle Size Range (D10-D90)	Laser Diffraction	35-100 microns
Specific Gravity	ASTM D792	1.47 grams/CC

THERMAL PROPERTIES	TEST METHOD	PA 605-A
Melting Point	ASTM D3418	181 Deg C
Melt Flow Rate (3min, 5.0kg, 235C)	ASTM D1238	40 (+/-) 4 grams/10min

MECHANICAL PROPERTIES	TEST METHOD	PA 605-A
Heat Deflection Temp @ 0.45 MPa	ASTM D648	180 Deg C
Heat Deflection Temp @ 1.82 MPa	ASTM D648	137 Deg C
Ultimate Tensile Strength (XY)	ASTM D638	43 MPa / 6,236 psi
Tensile Modulus (XY)	ASTM D638	3,709 MPa / 538 kpsi
Flexural Modulus	ASTM D790	3,517 MPa / 510 kpsi
Elongation at Break (XY)	ASTM D638	3.3%
IZOD Impact Strength (Unnotched)	ASTM D256	130 joules/meter
Hardness	Shore D	75
Volume Resistivity (22C, 50%RH, 500V)	ASTM D257-93	1.6 x 10 <sup>13</sup> ohm-cm
Surface Resistivity (22C, 50%RH, 500V)	ASTM D257-93	6.0 x 10 <sup>12</sup> ohm
Dielectric Constant, 1KHz	ASTM D150-95	14.5

Actual part properties may vary slightly from those listed above based on processing parameters, operating conditions, and material usage. Forecast3D makes no warranties of materials for any particular application, nor does it make a warranty of any type, expressed or implied, including, but not limited to, the warranties of merchantability for a particular purpose.

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