ALUMINUM FILLED

PA 605-A

HIGHLIGHTS

- Aluminum filled nylon 12
- Parts exhibit excellent thermal and mechanical properties
- Increased recyclability over other competitive materials
- Metallic gray surface finish

APPLICATIONS

- Wind tunnel models and components
- Automotive under hood mechanisms
- Rapid tooling and fixtures
- Ideal for applications requiring stiffness and thermal conductivity. Finished parts give the appearance of cast aluminum

TYPICAL PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	ENGLISH	METRIC
Color/Appearance	Visual	Metallic Grey	Metallic Grey
Bulk Density	ASTM D1895	0.387 oz/in^3	0.67 g/cm^3
Average Particle Size (D50)	Laser Diffraction	0.002 inches	55 microns
Particle Size Range (D10-D90)	Laser Diffraction	0.001 - 0.004 inches	35 - 100 microns
Sintered Part Density	ASTM D792	0.85 oz/in^3	1.47 g/cm^3
Heat Detection Temperature	ASTM D648	279° F @ 264 psi	137° C @ 1.82 MPa
Heat Detection Temperature	ASTM D648	356° F @ 66 psi	180° C @ 0.45 MPa
Ultimate Tensile Strength (XY)	ASTM D638	6,236 psi	43 MPa
Ultimate Tensile Strength (Z)	ASTM D638	5,400 psi	37 MPa
Tensile Modulus (XY)	ASTM D638	538,000 psi	3,709 MPa
Flexural Modulus (XY)	ASTM D790	510,000 psi	3,517 MPa
Flexural Strength (XY)	ASTM D790	6,290 psi	44 MPa
Elongation at Break (XY)	ASTM D638	3%	3%
Dielectric Constant	ASTM D150	14.5	14.5
Dielectric Strength	ASTM D149	180 v/mm	180 v/mm

The material properties provided herein are for reference purposes only. Actual values may vary significantly as they are dramatically affected by part geometry and process parameters. Material specifications are subject to change without notice.

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