

High Specific Gravity 3.5

PRODUCT DESCRIPTION

Jabil's PA6 - 3.5HG, high density polyamide 6 based compound is specially engineered for injection molding applications that require materials with high specific gravity. The compound boasts exceptional mechanical properties, including high tensile strength, stiffness, and toughness, making it the perfect material for applications that demand superior strength and durability. Its high specific gravity also means that it offers excellent weight to strength ratio, making it an ideal choice for applications where weight is a critical factor.

This polyamide 6 based compound is designed to withstand harsh environments, as it offers excellent chemical resistance and dimensional stability, ensuring that it maintains its shape and integrity over time.

The high specific gravity makes Jabil's compound the perfect choice for a wide range of applications, including automotive components, aircraft parts, and ballast for sporting equipment, such as golf clubs or archery bows. The exceptional weight to strength ratio of our compound also makes it suitable for use in counterweights and other weight-bearing components.

PROPERTIES

MECHANICAL PROPERTIES¹

	Test Condition	Typical Values	Method
Tensile Modulus (MPa)	Ambient	7095	ASTM D638, Type I
Tensile Elongation at Break (%)	Ambient	3.3	ASTM D638, Type I
Ultimate Tensile Strength (MPa)	Ambient	52	ASTM D638, Type I
Flexural Modulus (MPa)	Ambient	4625	ASTM D790
Flexural Strength (MPa)	Ambient	75	ASTM D790
Izod Impact, notched (J/m)	Ambient	36	ASTM D256
Izod impact, un-notched (J/m)	Ambient	384	ASTM D256

¹Testing conducted on bars printed at 23°C. Typical values are for reference only.

THERMAL PROPERTIES

	Test Condition	Typical Values	Method
Melt Temperature	10°C/min ramp	185 - 190°C	DSC

OTHER PHYSICAL PROPERTIES

	Test Condition	Typical Values	Method
Density (g/cm ³)	Ambient	3.5	ASTM D792

*Burn properties are highly dependent upon printer settings and part geometry. Suitability for an application is the responsibility of the user.

"Disclaimer: The information in this technical data sheet, including material properties, are obtained from testing representative samples under carefully controlled conditions and are provided for reference only. Material properties may be impacted by storage, handling, processing equipment/parameters, and product design, among other factors. The information is not a substitute for user testing to determine fitness for any specific use and the user is responsible for ensuring safe and lawful use of the product.

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