

# SELECTIVE LASER SINTERING

# PP NATURAL

## PRODUCT DESCRIPTION

Polypropylene Natural is true Polypropylene. With Polypropylene being one of the most commonly used plastics worldwide, this material is ideal for prototyping and end use production. PP Natural is a low weight material, by comparison to other plastics, and it exhibits durability in addition to being both tough and flexible.

## APPLICATIONS

This general purpose material is well suited for functional moving parts with features like snap fits. Excellent chemical resistance and electrical insulation make it ideal for automotive and electrical enclosures, with applications in a wide variety of fields, including automotive, consumer/household products, healthcare, and electrical equipment.

## KEY PRODUCT BENEFITS

- Chemical Resistance, Electrical Insulation
- Tough and Durable
- Low Weight

## PROPERTIES

PROPERTY	TEST METHOD	VALUE
Color	-	Natural/Yellowish/Translucent
Sintered Density	ASTM D792	0.90 ± 0.05 g/cm <sup>3</sup>
Water absorption, 20 °C, 50% Relative Humidity	ASTM D570	0.5 ± 0.2 %
E-Module (x-y plane)	ASTM D638, test speed 10mm/min	850 ± 150 MPa
E-Module (z plane)		800 ± 150 MPa
Tensile strength (x-y plane)		18 ± 3 MPa
Tensile strength (z plane)		15 ± 3 MPa
Elongation at break (x-y plane)		15 ± 3%
Elongation at break (z plane)		7 ± 3%

## TOLERANCES

For well-designed parts, tolerances of ±0.010 in. plus ±0.0015 in./in. for each additional inch can typically be achieved. Note that tolerances may change depending on part geometry.

Version 1.0 | July 2020



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