HP Multi Jet Fusion

PA 11

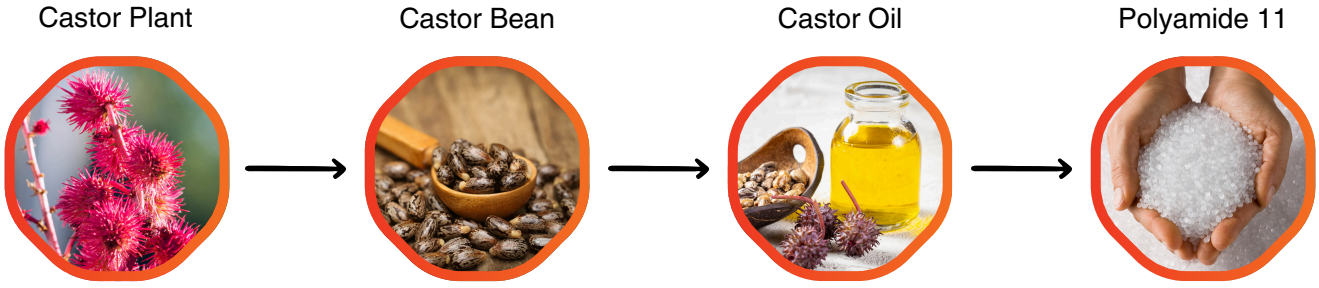
Description

Polyamide 11 (PA 11) is a high-performance, bio-based polyamide produced from castor oil using a 100% renewable process. PA 11 is characterized by its unique long-chain molecular structure, which imparts outstanding flexibility, excellent impact resistance, and superior fatigue behavior. This semi-crystalline polymer has a low moisture absorption rate, contributing to its exceptional dimensional stability and resistance to harsh chemicals, including hydrocarbons and oils.

Benefits

- High temperature resistance
- Low environmental impact
- High dimensional stability, tensile strength, and impact resistance
- Lightweight, yet durable part production
- Enhanced elongation at break

A Bio-Based Material



Material Properties

	PA 11	Test Method
Description	HP 3D High Reusability PA 11	
Tensile Strength (MPa)	Average XY (52) Average Z (52)	ASTM D638
Tensile Modulus (MPa)	Average XY (1800) Average Z (1800)	ASTM D638
Elongation at Break (%)	Average XY (50) Average Z (35)	ASTM D638
Impact Strength (KJ/m2)	Average XY (6) Average Z (5)	ASTM D256
Heat Deflection Temperature	365ºF @ .45 MPa	ASTM D648
Powder Melting Point (DSC)	396°F	ASTM D3418
Particle Size (µm)	54	ASTM D3451
Density (g/cm3)	1.05	ASTM D792
Shore Hardness D	80	ASTM D2240