

## FDM MATERIAL PRODUCTION - GRADE

### Fused Deposition Modeling (FDM) – Nylon 12 / 3D Printing – Additive Manufacturing

**Nylon 12** - 3d manufacturing material is ideal for repetitive snap fits, high fatigue resistance, strong chemical resistance and press-friction fit inserts.

<b>Technology:</b>	FDM
<b>Material type:</b>	Thermoplastics
<b>Elongation at Break % (ASTM D638):</b>	English ~ 9.5% ~ Metric ~ 9.5%
<b>Flexural Strength (ASTM D790):</b>	English ~ 10,200 psi ~ Metric ~ 70 MPa
<b>Flexural Modulus (ASTM D790):</b>	English ~ 190 psi ~ Metric ~ 1,310 MPa
<b>Flexural Strain at Break (ASTM D790):</b>	English ~ No Break ~ Metric ~ No Break
<b>Heat Deflection (HDT) @ 66 psi annealed, (ASTM D648):</b>	English ~ 206.6°F ~ Metric ~ 97°C
<b>Heat Deflection (HDT) @ 264 psi annealed, (ASTMD648):</b>	English ~ 179.6°F ~ Metric ~ 82°C
<b>Impact Strength Notched (ASTM D256):</b>	English ~ 2.8 ft-lb/in. ~ Metric ~ 150 J/m
<b>Impact Strength Un-notched (ASTM D256):</b>	English ~ 37.4 ft-lb/in. ~ Metric ~ 2,000 J/m
<b>Available Colors:</b>	Black ~ (Standard).
<b>Net Build Size Parts Up To:</b>	36 x 24 x 36 in. ~ 914.4 x 609.6 x 914.4 mm
<b>Layer thickness for 450mc / 900mc:</b>	0.010 in. ~ (.254 mm) ~ 0.007 in. ~ (.178 mm)
<b>Accuracy for 450mc / 900mc:</b>	±0.007 in. ~ (.178 mm) ~ ±0.0035 in. ~ (.089 mm)
<b>Applications:</b>	Take on everything from tooling, jigs and fixtures to covers, panels and vibration resistant parts.

Disclaimer: The data above is general information and may vary from machine to machine or supplier to supplier. All tolerance specifications reflect the approximate range of a process's capabilities and should be viewed only as a guide. Actual capabilities are dependent upon manufacturing, equipment, materials, and part requirements.