

# Advanced Materials for Production with 3D Printed Plastics

# Plastic 3D printing materials can replace a wide array of engineering plastics, elastomers, and composites to match your specific application needs.

A vast range of material properties are now available in plastic Additive Manufacturing (AM). This graphic shows the diverse mix of properties that are available for your application.

Production 3D printing enables high value part production at accelerated speeds, and in flexible volumes. Production materials for plastic AM include:

# **GENERAL PURPOSE**

Rubber-like elastomers to rigid and ultra-tough plastics

### **GREAT FOR:**

- Low-volume production
- Master patterns for molding
- Consumer electronic components



### **TOUGH & DURABLE**

Rugged nylon, composite, ABS-like, and polypropylene-like parts

### **GREAT FOR:**

- Monolithic assemblies
- Fluid-handling components
- Housings and enclosures

## TRANSPARENT

Rigid, thermal resistant, and high clarity parts

### **GREAT FOR:**

- Polycarbonate-like components
- Lighting components
- Certain medical models and devices

# HIGH TEMPERATURE

Rigid and stable thermal resistant parts

### **GREAT FOR:**

- Under-the-hood components
- Ceramic-like components
- Consumer goods and electronics

# BIOCOMPATIBLE

USP Class VI capable and/or ISO 10993 capable parts

### **GREAT FOR:**

- Digital dentistry
- Certain medical applications such as surgical guides

### PLASTIC 3D PRINTING MATERIALS ARE DIVERSE AND VERSATILE.

Achieve the right flexibility, durability, stiffness, toughness, stability, clarity, look and feel, biocompatibility, temperature resistance, moisture resistance, and more.

# Produce end-use metal parts fast with castable materials.

3D printing materials for casting include:



OPTIMIZED CASTING PLASTICS



100% WAX FITTING INTO EXISTING FOUNDRY WORKFLOWS



OTHER EXPENDABLE, FOUNDRY-FRIENDLY OPTIONS

Materials Buyer's Guide Accelerate Your Business with 3D Printing Materials for Prototyping and Production Applications



#### 3D SYSTEMS

# Get the complete guide for a full breakdown of production material options.

Download this free materials guide to help you find the right materials for your AM production project.

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Additive Manufacturing Solutions