

Materials are the lifeblood of additive manufacturing. Oftentimes referred to as consumables, the advancements in 3D printing materials have been extraordinary with no signs of slowing down. Material developments are driven by the demand for stronger and specific solutions that lead to new applications. The book of additive manufacturing continues to evolve and every technology, process and material is becoming viable solutions somewhere, for someone.

STRENGTH AND PERFORMANCE



METAL AM

Metal AM is the next generation of 3D printing. Eliminating the need for assembly, complex metal parts can be printed at one time and used for demanding applications in the industrial and medical fields.

- Aluminum
- Stainless Steel
- Inconel
- Cobalt Chrome
- Titanium

ADVANCED THERMOPLASTICS

3D printed production plastics are used for aerospace and automotive applications that require high-strength and high-temperature capabilities.

- FDM Nylon Family
- MJF Nylon Family
- SLS Nylon Family
- Polycarbonate
- Ultem Family
- Polycarbonate - ABS

SPECIALTY MATERIALS & FLEXIBLES

Specific materials are available for niche applications that meet biocompatibility standards or used in tooling, casting and forging applications. Additionally, 3D printed flexible materials are great for gaskets, seals, and overmolds.

- Med610
- Sacrificial Tooling ST - 130
- TPU Shore Value 88A and 92A
- PolyJet Agilus 30

ABS

ABS and simulation plastics are primarily used for rapid prototyping and concept development.

- ABS Plastic
- ASA Plastic
- PolyJet Simulation Plastics
- SLA Simulation Plastics

Disclaimer: This is not the complete list of all additive materials available in the marketplace today. There are many variations of different thermoplastics, thermosets and metals that are still being developed Forecast3D has over 25 years of experience within the AM market and has compiled, what we consider, the most complete material offering possible. Our complementary technologies enable our clients to solve the most difficult challenges with proven, successful and certified materials.

The future of additive manufacturing is predicated on material advancements that will lead to new applications and solutions for production, tooling, and spare part replacement. **Forbes published a recent survey** conducted with 1,300 respondents across North America and Europe that demonstrates significant increases from 2015-2019 for additive applications.

