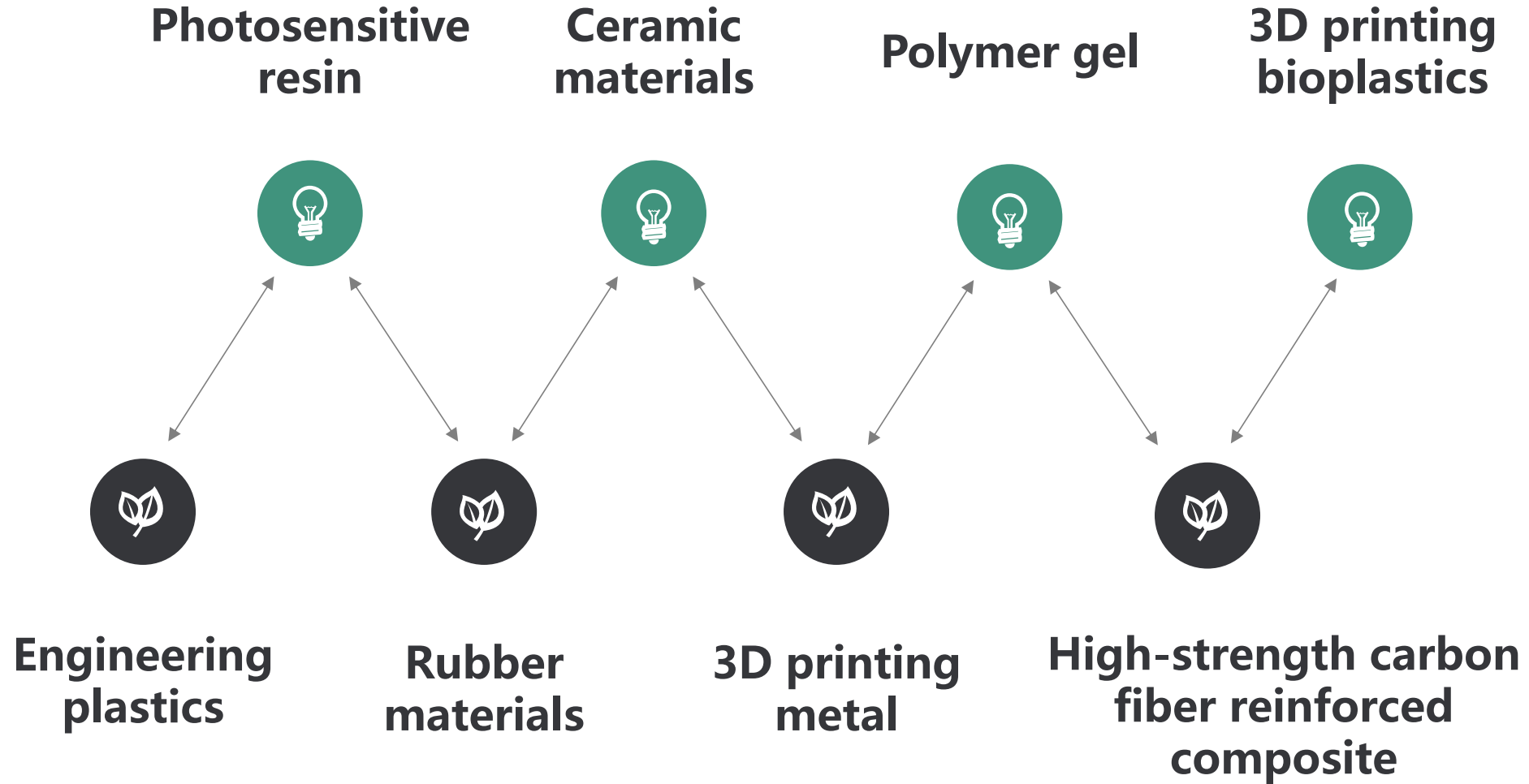


3D Printing Materials

Alfa Chemistry



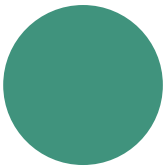
3D Printing Materials



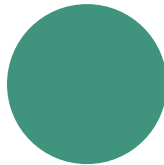
Engineering plastics



ABS

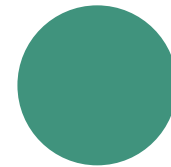


PA

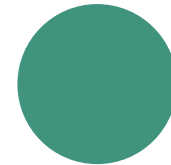


Engineering plastics have excellent strength, hardness, impact resistance, resistance and anti-aging property

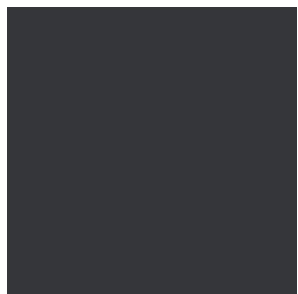
PC



Nylon-like materials



ABS



ABS materials are the preferred engineering plastics for 3D printing by fused deposition due to their good hot melt property and impact strength.



PA has high strength and flexibility, so it can directly use 3D printing to manufacture equipment parts. PA carbon fiber parts manufactured by 3D printing have high strength and toughness and can be used for mechanical tools instead of metal tools.



Due to the adhesiveness and powder characteristics of PA, it can be mixed with ceramic powder, glass powder, metal powder, and low-temperature 3D printing of ceramic powder, glass powder, and metal powder can be achieved by bonding.

PC has excellent strength, its strength is about 60% higher than ABS material, so it is suitable for the application of super-strong engineering products.



Engine peripheral parts



Door handle sets



Brake pedals

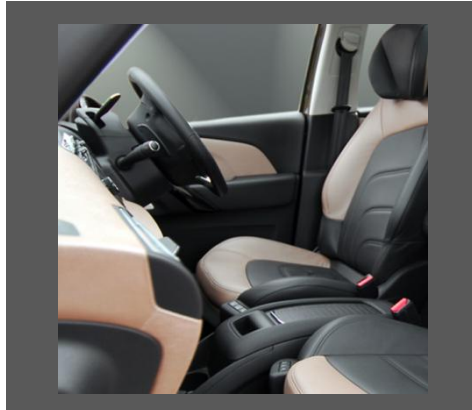
Photosensitive resin

Polymer monomer
+
Prepolymer



Due to its good liquid flow and instant photocuring properties, liquid photosensitive resin is the material of choice for 3D printing consumables for high-precision product printing.

Rubber materials



Rubber materials possess a variety of levels of elasticity. The hardness, elongation at break, tear resistance and tensile strength of rubber make them ideal for applications requiring anti-skid or soft surfaces.

Ceramic materials



High strength



Low density



High hardness



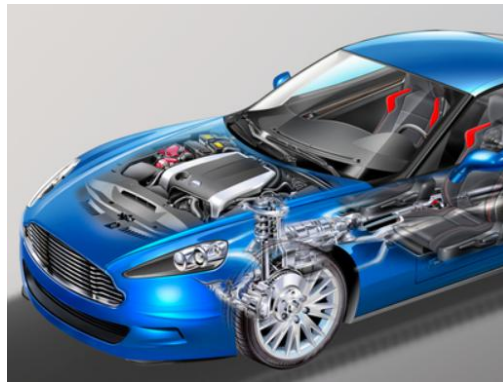
Chemical stability



High temperature resistance



Corrosion resistance



3D printing metal

Titanium alloy



Cobalt-chromium alloy



Stainless steel



Aluminum alloy material



Gold

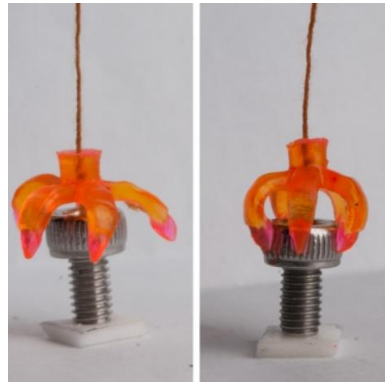


Silver

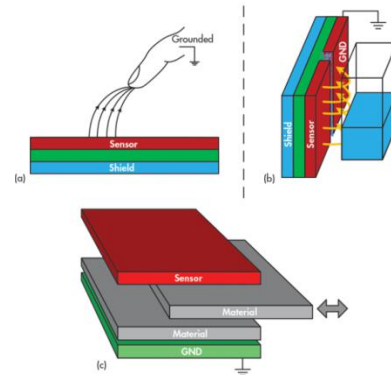


The metal powder used in 3D printing generally requires high purity, good sphericity, narrow particle size distribution and low oxygen content.

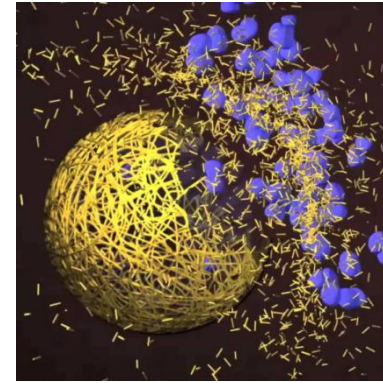
Polymer gel



Sodium alginate



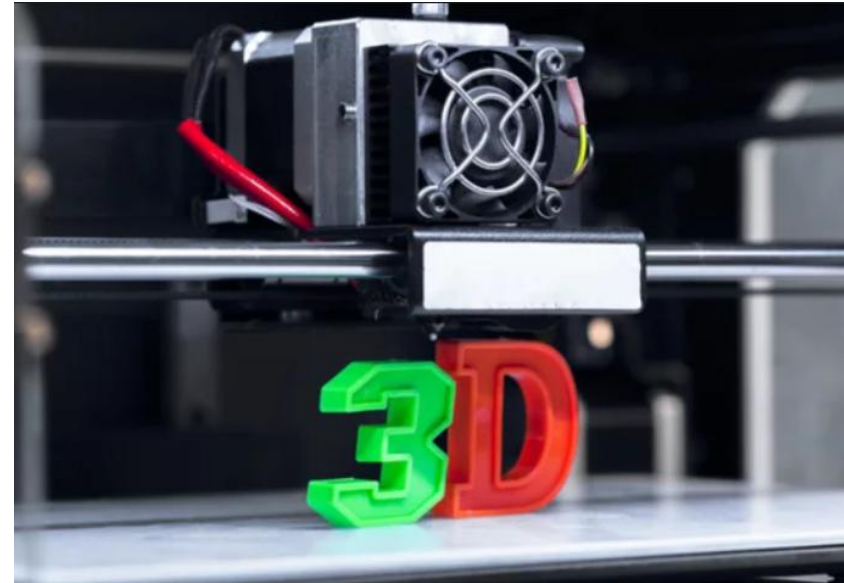
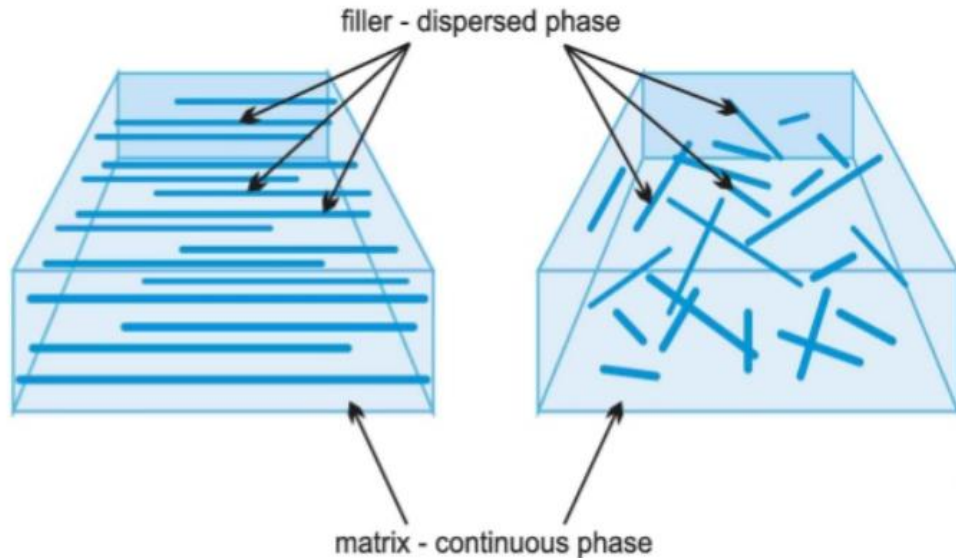
Cellulose



Peptone

Polyacrylic acid

High-strength carbon fiber reinforced composite



Compared to traditional extrusion or injection molding methods, 3D printing can precisely set its overall performance by precisely controlling the orientation of carbon fibers and optimizing specific mechanical, electrical and thermal properties. Since 3D printed composite parts can only be fabricated one layer at a time, each layer can achieve any desired fiber orientation. Complex shape parts combined with reinforced composite materials have excellent high temperature and chemical resistance.

3D printing bioplastics



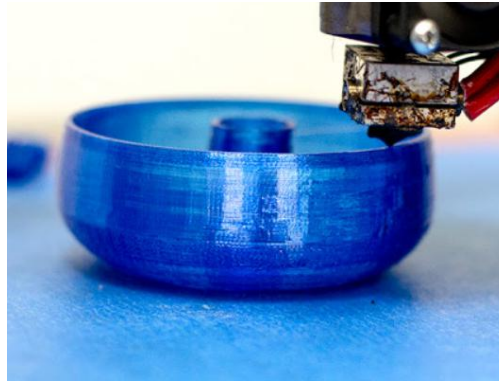
PLA



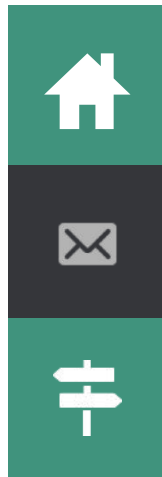
PETG



PHB



As an environmentally friendly plastic, PLA is biodegradable into active compost. The biodegradable polymer material can be molded by 3D technology to produce its PLA tissue engineering scaffold with growth ability.



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