

Unlocking applications

HH.

www.smart3d.tech

High Performance Filaments

Smart3D Materials are developed to meet the mechanical and chemical performance required in each application. Durable, lightweight, flame retardant, strong, stiff or flexible materials that can withstand different conditions.





Widest Material Range

The Smart3D portfolio offers the broadest variety of engineering materials on the market to enable diverse applications in multiple industries. This provides our customers with the flexibility they need to produce parts for different uses.







State-of-the-art Production

With specialize machinery and certified processes, our manufacturing lines ensures dimensional accuracy and filament consistency. Every step in the process is controlled to guarantee quality and low moisture filament.

A comprehensive solution where materials perform



Heated Print Chambers

Materials express their full mechanical and chemical strengths when the chamber they are printed in uniformly raises to their glass transition temperatures (Tg).



Hybrid Drying Technology™ Only filament properly dried in a process not involving excessive heat can ensure material properties are not damaged in the extrusion process.



Protected Feeding

Filament must be protected from ambient moisture or dust while printing for optimal performance.



Top Quality Materials The material is ultimately the k

The material is ultimately the key application enabler, for which quality and consistency must be assured.



ABS

Acrylonitrile Butadiene Styrene

- Impact resistance and toughness
- UV, heat and abrasion resistance
- Shiny, smooth surface when printed with heated chamber



ASA Acrylonitrile Styrene Acrylate • UV resistance, suitable for outdoor use

Good mechanical strength



BVOH Butenediol Vinyl Alcohol

- Water soluble support material
- Compatible with ABS, ASA, PA, PC-ABS, PET-g and others
- High solubility







PA12 Polyamide 12

- Good elongation at break, high tensile and impact strength
- High fatigue endurance and low friction coeficient
- Chemical, UV and heat resistance

Available colors

> Black Natural

White

Red Blue

Available

colors

Black <mark>Natural</mark> White

Red

Blue

Available colors

Natural

Available colors

Natural

Available colors

Natural



PAHT Polyamide 6/66

- High temperature resistance
- Very high stiffness and ductility



PAHT CF Polyamide 6/66 – Carbon Fiber

- Superior mechanical properties and dimensional stability
- High heat and chemical resistance
- Properties comparable to injection molding



PC-ABS vOAvailable
colorsPolycarbonate - Acrylonitrile Butadiene StyreneBlack• Heat resistant and flame retardantNatural

- High impact strength
- Good resolution and surface finish



PEEK

Polyether Ether Ketone

- Excellent mechanical and chemical resistance at high heat
- Resistant to thermal degradation, organic and aqueous
 environments
- Good polymer alternative to aluminum and steel



PET-g ESD Polyethylene Terephthalate-Glycol

- ESD and food safe
- Good strength, ductility and chemical resistance
- Perfect for electronic jigs and fixtures

Available

colors

Black

Available colors

Black

White

Available

colors

Natural

Available colors

Black

Natural

White



PP CF

Polypropylene – Carbon Fiber

- Excellent chemical resistance
- High strength and stiffness



PVA Polyvinyl Alcohol

- Water soluble support material
- Compatible with PLA



Tough PLA Polylactic Acid

- High tensile strength and impact resistance
- Low shrinkage
- Easy to print



TPE 60A Thermoplastic Elastomer

- High elastic recovery
- Resistance to high and low temperatures
- Ideal for dynamic profiles and seals



TPU 98 Thermoplastic Polyurethane

- Semiflexible
- High impact and abrasion resistance
- Strong, shatter-resistant parts

Available

colors

Black

Available

colors

Natural

Available colors

> Black Natural

White

Red Blue

Available colors

Black

Available colors

Black