

Ultrasint® PA6 FR is an advanced engineering polymer powder containing a flame-retardant (FR) additive. Combining excellent mechanical and thermal performance with flammability requirements, it is especially suitable for applications in the electronics and public transportation sector. The halogen-free formulation based on PA6 makes the material unique in the 3D printing industry. It thereby opens up completely new application fields in 3D printing of parts for flammability-sensitive use cases.

Benefits at a Glance

- Sustainable halogen-free FR solution
- Extra high rigidity
- Exceptional thermal resistance
- In-particle filler technology
- Color: Anthracite

Mechanical Properties

Young's Modulus	2500 MPa
Tensile strength	41 MPa
Elongation at break	3 %
HDT B (0.45 MPa, dry)	207 °C
Charpy Impact unnotched	7 kJ/m²

Applications

It is relevant to use this 3D printing material for flammability-sensitive application fields such as **electronics**, **aerospace** and **public transportation**.



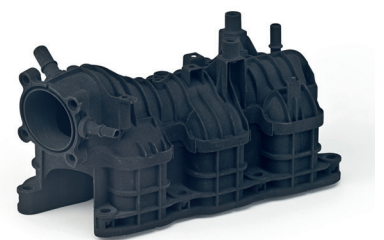
Electronics

This high performance material can be used for electronics projects, its has a **UL 94 V-2** rating starting at 0.8 mm, and it has a Glow Wire Flammability Index (GWFI) up to 960°C. PA6 FR is the perfect material to manufacture switchboard parts and any other electronic components.



Aerospace

For aerospace applications Smoke Density and Smoke Toxicity (FST) tests have been successfully passed. It offers the possibility to 3D print air ducts, jigs and fixtures for cables, and pipes.



Transportation

PA6 FR can also be used for buses and transport having successfully passed the ECE-R 118 App.7 test for use in public buses.