Fused Deposition Modeling (FDM)

ULTEM 9085

Key Features

Impact resistance • Heat resistance • Flame retardancy • Chemical resistance

Applications

Prototyping • End-use parts • Tooling • Aerospace • Automotive • Machine building

Product Description

ULTEM™ 9085 filament is a high-performance thermoplastic designed for demanding applications with FDM technology. It offers excellent physical and mechanical properties, making it one of the strongest materials for FDM. With a high-strength-to-weight ratio, ULTEM™ 9085 is ideal for applications requiring strength with minimal weight. It also boasts high impact resistance, excellent chemical tolerance, and meets various transportation industry standards for flame, smoke, and toxicity requirements.

Properties

Tensile modulus (XZ, ZX)	2,520, 2,410 MPa
Tensile strength at break (XZ, ZX)	68.1, 39.4 MPa
Elongation at break (XZ, ZX)	5.4, 1.9%
Flexural strength at break (XZ, ZX)	104, 73.1 MPa
Flexural modulus (XZ, ZX)	2,400, 2,130 MPa
Heat deflection temperature (0.45 MPa)	176.9°C
Heat deflection temperature (1.80 MPa)	172.9°C
Glass transition temperature	177.32°C
Density	1.27 g/cm^3
Flame retardancy (Tan only*)	UL 94 V-0

*The black version is not flame-retardant

Reference

For more detailed source information, please consult the original document linked here. We encourage users to verify the data's relevance and suitability for their specific needs.