

Ultem9085

ULTEM9085 is a flame-retardant high-performance thermoplastic for digital manufacturing and rapid prototyping. It is ideal for the transportation industry due to its high strength-to-weight ratio and its FST (flame, smoke and toxicity) rating.

This unique material's certifications make it an excellent choice for the commercial transportation industry – especially aerospace, marine and ground vehicles.

ULTEM 9085 allows design and manufacturing engineers to produce fully functional parts that are ideal for advanced functional prototypes or end use without the cost or lead time of traditional tooling.

Mechanical Properties	Test Method	Metric
Tensile Strength, Yield (Type 1, 0.125", 0.2"/min)	ASTM D638	33-47 MPa
Tensile Modulus (Type 1, 0.125", 0.2"/min)	ASTM D638	2,150-2,270 MPa
Tensile Elongation at Break (Type 1, 0.125", 0.2"/min)	ASTM D638	2,2-5,8%
Flexural Strength (Method 1, 0.05"/min)	ASTM D790	68-112 MPa
Flexural Modulus (Method 1, 0.05"/min)	ASTM D790	2,050-2,300 MPa
Compression Strength	ASTM D695	87-90 MPa
Compression Modulus	ASTM D732	1,731-7,012 MPa
IZOD, nothed (Method A, 23°C)	ASTM D256	48-120 J/m
IZOD un-notched, Method A, 23°C)	ASTM D256	172-781 J/m

Thermal Properties	Test Method	Metric
Heat Deflection (HDT) @ 66 psi, 0.125" unannealed	-	-
Heat Deflection (HDT) @ 264 psi, 0.125" unannealed	ASTM D648	153°C
Glass Transition (Tg)	DSC (SSYS)	186°C
Coefficient of Thermal Expansion	ASTM E228	65,27 µm (m·°C)
Melting Point	Not Applicable	Not Applicable