

TM+86

High Toughness Resin

TM+86 is the material of choice for the application of parts with high toughness and impact resistance.

TM+86 has the advantages of similar PA 66 material performance, with superior performance such as strong fatigue resistance, strong impact resistance at low temperature and low absorption. TM+86 is widely used in the printing of personal wear, medical protective gear, automobiles and industrial parts. Based on

LEAP™ nano-release technology, the component molding speed is fast, with excellent dimensional accuracy and detail resolution.



Strength



Tough



Impact resistance



Black

Transparent

US:

940 Old County Rd, Belmont, CA, 94002, USA

MAT #TM862201-01 Rev1.0

TM+86 Technical Data Sheet:

Tensile Properties, ASTM D638, Type V		
	Metric	U.S.
Tensile Modulus, 1 mm/min	1880 MPa	272.7 ksi
Ultimate Tensile Strength, 10 mm/min	46.5 MPa	6.74 ksi
Elongation at Break, 10 mm/min	23 %	23 %
Tensile Strength at Yield, 10 mm/min	45.6 MPa	6.61 ksi
Elongation at Yield, 10 mm/min	4.51 %	4.51 %
Impact Properties		
	Metric	U.S.
Notched Izod (Machined), 23°C, ASTM D256	31.29 J/m	0.58 ft-lbf/in
Notched Izod (Machined), -30°C, ASTM D256	27.3 J/m	0.51 ft-lbf/in
Notched Izod (Machined), 23°C, ISO 180/A	3.08 kJ/m ²	1.47 ft-lb/in ²
Notched Izod (Machined), -30°C, ISO 180/A	2.67 kJ/m ²	1.27 ft-lb/in ²
Flexural Properties, ASTM D790, 1 %/min		
	Metric	U.S.
Flexural Strength	65.30 MPa	9.47 ksi
Flexural Modulus	1735 MPa	251.6 ksi
Thermal Properties, ASTM D648		
	Metric	U.S.
Heat Deflection Temperature @ 0.455 MPa/66 psi, ASTM D648	68 °C	154 °F
Heat Deflection Temperature @ 1.82 MPa/264 psi, ASTM D648	47 °C	1116 °F
General Properties		
	Metric	
Hardness, Shore D, ASTM D2240	75D	
Density (cured resin), ASTM D792	1.10 g/cm ³	
Density (liquid resin), ASTM D4052	1.04 g/cm ³	
Viscosity, 40°C, ASTM D2196	1510 cps	
Water Absorption, 24 hours, 23°C, ASTM D570	0.59 %	
Water Absorption, Long Term (14 Days), ASTM D570	1.89 %	

The above TDS value of TM+86 is tested and verified in LuxCreo's 3D printing system.

The mechanical properties of the material may be different due to the placement direction of the 3D printing model on the forming table, the optical power of the 3D printing system and other parameters, and the selection of the post-process technology of the 3D printed parts. Please refer to LuxCreo's "Product Design and Printing Guide" or consult after-sales to choose a suitable process. Improper use of materials or non-compliance with "Product Design and Printing Guidelines" may result in changes in mechanical properties and colors.

LuxCreo reserves the right to change material properties and formulations without notice.