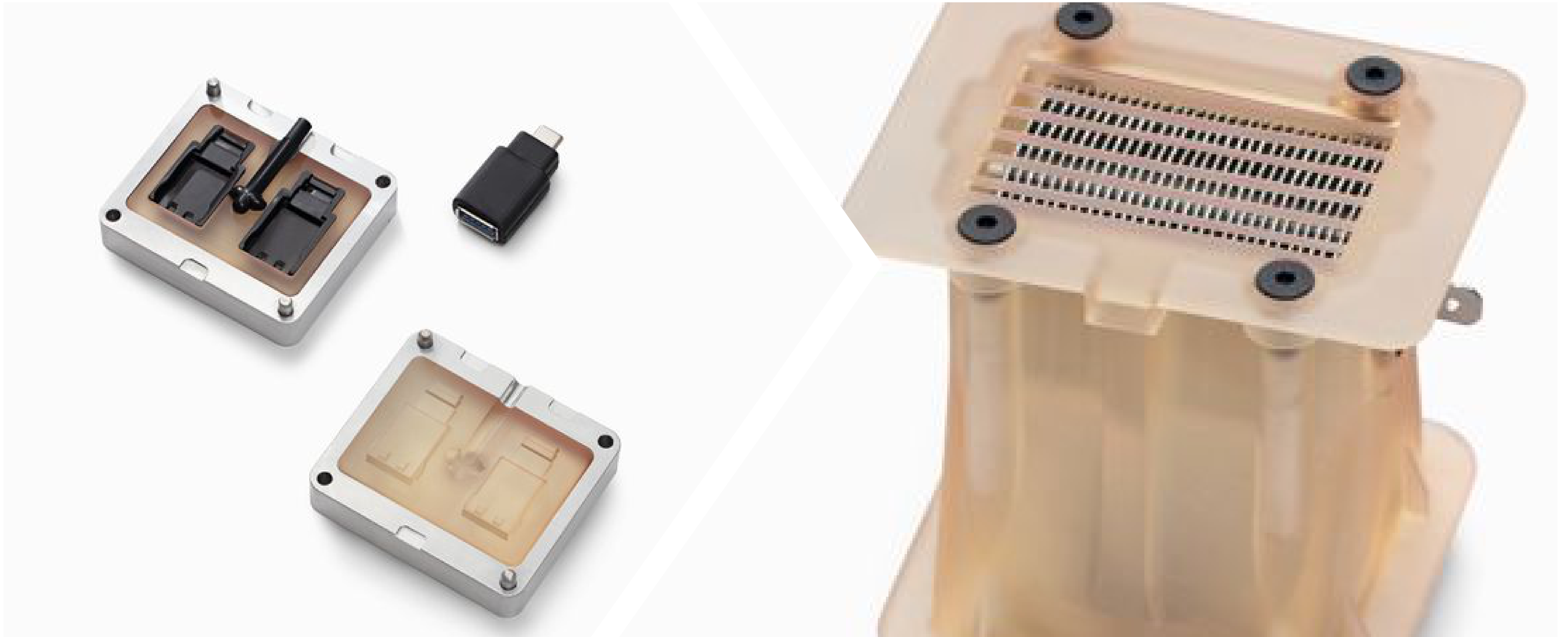


High Temperature



Generic Data :

Technical Name	High Temp.
Process	Stereolithography (Micro-SLA)
Layer thickness	100 μm
Accuracy	(+/-)200 μm
Maximum Build size	145 x 145 x 175 mm

High Temperature material, manufactured by Formlabs Ltd., is a resin based material compatible with Desktop Stereolithography (Micro-SLA) technology. One of the highlights of this material is its high Heat Deflection Temperature (HDT) of 238°C @ 0.45 MPa, which is incomparable with any other 3D Printing material currently available in the market.

The material has a light-yellowish color and has an inherent smooth surface finish despite support structure generation. The material is best suited for applications experiencing high temperatures with minimal loading. The material is NOT flexible, thereby it is unsuitable for applications requiring snap fits and live hinges.

Characteristics

- + High Heat deflection temperature
- + Good mechanical properties
- + Smooth surface finish
- Unsuitable for Snap-fits and live-hinges
- Support structure generation

Applications

- ✓ High temperature applications
- ✓ Electronic enclosures
- ✓ 3D Printed Molds with desktop injection molding
- ✓ Automotive, packaging industries

Material Data Sheet

Material Properties	Value	Units	Standard Test Method
Color (Natural)	LightYellow	-	-
Mechanical Properties			
Ultimate Tensile Strength	51.1	MPa	ASTM D 638-14
Tensile Modulus	3600	MPa	ASTM D 638-14
Elongation at Break	2	%	ASTM D 638-14
Flexural Strength	106.9	MPa	ASTM D 790-15
Flexural Modulus	3300	MPa	ASTM D 790-15
Izod Impact (notched)	14	J/m	ASTM D 256-10
Water Absorption	0.21	%	ASTM D 570-98
Thermal Properties			
Thermal Expansion (0 - 150 °C)	87.5	µm/m/°C	ASTM E 831-13
Heat Deflection Temp. under load			
@0.45 MPa	238	°C	ASTM D 648-16
@1.8 MPa	130	°C	ASTM D 648-16