

envisionTEC SI300

The envisionTEC SI300 is an extremely durable photopolymer that produces very accurate parts with high feature detail. Based on a whole new chemistry platform that gives the material high impact resistance similar to thermoplastics, it is a breakthrough in photopolymer technology. Tough, complex parts can be built with a superb surface finish compared with competing technologies.

Application

The high-temperature, ABS-like photopolymer is used in the digital mask production solid imaging process to build three-dimensional parts. envisionTEC SI300 provides considerable processing latitude and is ideal for the medical, electronic, aerospace, and automotive markets that demand accurate RTV patterns, durable concept models, highly accurate parts, humidity, and temperature tolerant parts.

Applications include:

- ◇ Functional end-use performance prototypes
- ◇ Snap fit designs
- ◇ Impellers
- ◇ Duct work
- ◇ Connector and electronic covers
- ◇ Automotive housings and dashboard assemblies
- ◇ Packaging applications
- ◇ Consumer sporting goods



Mechanical Properties

ASTM Method	Description	Value
D638M	Tensile Modulus Tensile Strength at Break Elongation at Break	2,680 MPa 78.1 MPa 4.39%
D790M	Flexural Strength Flexural Modulus	65 MPa 2,500 MPa
D2240	Hardness (Shore D)	85
D256A	Izod Impact (Notched)	0.61 – 0.71 J/cm ²

Physical Properties

Description	Value
Appearance	Slightly Yellow Opaque Beige Opaque
Viscosity	180 cP at 30 °C
Density	1.10 g/cm ³ at 25 °C

Thermal and Electrical Properties

ASTM Method	Description	Value
E1545-00	Glass Transition Temperature	61 °C
D648	HDT @ 0.46 MPa HDT @ 1.81 MPa	57 °C 48 °C

All data provided is preliminary data and must be verified by the individual user.