

## Advanced Materials

# RenShape® SL V2 Stereolithography Material

For use on Solid State Laser SLA® Systems

Accurate and Durable

Ideal for Polypropylene-like Parts

## DATA SHEET

### DESCRIPTION

RenShape® SL V2 Stereolithography Material is a general purpose resin that combines accuracy with durability. This product is suitable for snap-fit parts. The unique combination of high elongation and impact strength provides robust performance for functional parts.

### LIQUID MATERIAL

MEASUREMENT	CONDITION	VALUE
Appearance		Clear Amber
Density	@ 25°C (77°F)	1.15 g/cm <sup>3</sup>
Viscosity	@ 28°C (82°F)	420 cps
Viscosity	@ 30°C (86°F)	320 cps
Penetration depth (Dp)		6.6 mils
Critical exposure (Ec)		9.6 mJ/cm <sup>2</sup>
Part building layer thickness*		0.10mm (0.004 in.)

\* Dependent upon part geometry and build parameters.

### POST-CURED MATERIAL

MEASUREMENT	TEST METHOD	VALUE 90-minute UV post-cure
Hardness, Shore D	ASTM D-2240	82
Flexural modulus	ASTM D-790	2,272 MPa (327 ksi)
Flexural strength	ASTM D-790	74 MPa (10,680 psi)
Tensile modulus	ASTM D-638	2,175 MPa (323 ksi)
Tensile strength	ASTM D-638	49 MPa (6,995 psi)
Elongation at break	ASTM D-638	21%
Impact strength, notched Izod	ASTM D-256	43 J/m (0.80 ft.-lb./in.)
Heat deflection temperature	ASTM D-648 @ 66 psi @ 264 psi	56°C (133°F) 50°C (122°F)
Glass transition, Tg	DMA, E" peak	{58°C (136°F)...}
Coefficient of thermal expansion	TMA (T<Tg) TMA (T>Tg)	106 x 10 <sup>-6</sup> /°C 199 x 10 <sup>-6</sup> /°C
Density		1.19 g/cm <sup>3</sup>



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## STORAGE

RenShape® SL V2 may be stored for up to 18 months from date of manufacture of the material at between 18 and 35°C provided the components are stored in sealed containers.

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## Handling precautions

### Caution

Do not use this product until the MSDSs have been read and understood. To protect against any potential health risks presented by our products, the use of proper personal protective equipment (PPE) is recommended. Eye and skin protection is normally advised. Respiratory protection may be needed if mechanical ventilation is not available or is insufficient to remove vapors. For detailed PPE recommendations and exposure control options consult the product MSDS or a Huntsman EHS representative.

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