

Technical Data Sheet

Product

S-ST5001 ABS-like Resin

Product Description

S-ST5001 is an ABS like SLA resin which has accurate and durable features. It is designed for solid state SLA platforms. S-ST5001 can be applied in master patterns, concept models, general parts and functional prototypes in the field of automotive, medical and consumer electronics industries.

Typical Features

- Liquid resin`s medium viscosity, so easy recoating, easy clean parts and machines
- Improved strength retained, improved dimensions retention of parts in humid condition
- Need minimal part finishing
- Long shelf life in machine
- Easy burning completely

Typical Benefits

- Need less part finishing time, easier post-curing
- Building accurate and high tough parts with an improved dimensional stability
- BROWN Color is more close to the ABS after curing
- Low shrink and good resistance to yellowing
- Outstanding temperature resistant
- Outstanding machinable SLA material

Safety

When handling and processing these products, mandatory and recommended industrial hygiene procedures and related industrial safety precautions must be followed. The product is sensitive to the humidity of the environment. For related information, please refer to the Material Safety Information Sheet of the material.

Precautions

These technical information data are based on our current knowledge and experience. Taking into account that many factors may affect the processing and application of our products, these data do not exempt processors from their own investigation and testing responsibility; These data do not imply any guarantee for certain characteristics, nor does it imply the suitability of the product for a specific purpose. Any description, drawings, photos, data, proportions, weights, etc. can be changed without prior information and do not constitute the agreed contract quality of the product. The recipient of the product is responsible for ensuring any proprietary rights and compliance with existing laws and regulations. The safety data provided in this publication is for reference only and does not constitute a legally binding chemical safety data sheet. The safety data sheet of the relevant materials can be obtained from your supplier or contact us at info@soonser.com.

Technical Parameters

Physical Properties – Liquid Material

Appearance	Brown
Density	1.11~1.15g/cm ³ @ 25 °C
Viscosity	405~500 cps @ 25 °C
Dp	0.135~0.152 mm
Ec	8.9~9.5 mJ/cm ²
Building layer thickness	0.05~0.12mm

Mechanical Properties of Post-Cured Material

MEASUREMENT	TEST METHOD	VALUE
		90-minute UV post-cure
Hardness, Shore D	ASTM D 2240	77~88
Flexural modulus, Mpa	ASTM D 790	2,682-2,778
Flexural strength, Mpa	ASTM D 790	70- 74
Tensile modulus, MPa	ASTM D 638	2,599-2,715
Tensile strength, MPa	ASTM D 638	40-58
Elongation at break	ASTM D 638	7 -12%
Poisson`s Ratio	ASTM D 638	0.4-0.44
Impact strength notched Izod, J/m	ASTM D 256	30 - 37
Heat deflection temperature, °C	ASTM D 648 @66PSI	55~68
Glass transition, Tg, °C	DMA,E” peak	60~75
Coefficient of thermal expansion, /°C	TMA(T<Tg)	90~102*E-6
Density, g/cm ³		1.12~1.18
Dielectric Constant 60 Hz	ASTM D 150-98	4.1~5.0
Dielectric Constant 1 kHz	ASTM D 150-98	3.2~4.2
Dielectric Constant 1 MHz	ASTM D 150-98	3.2~4.1
Dielectric Strength kV/mm	ASTM D 1549-97a	12.7~16.2

Note: The use and storage temperature of S-ST5001 should not be too high. Please use it below 25 degrees Celsius; The relative humidity for use and storage of S-ST5001 must be below 38RH%.