

# Technical Data Sheet

## Product

S-ST9012D ABS-like Resin

## Product Description

S-ST9012D is an ABS like SLA resin which has accurate and durable features. It is designed for solid state SLA platforms. S-ST9012D 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

## Typical Benefits

- Need less part finishing time,easier post-curing
- Building accurate and high tough parts with an improved dimensional stability
- YELLOW 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](mailto:info@soonser.com).

## Technical Parameters

### Physical Properties – Liquid Material

Appearance	Yellow Green
Density	1.11~1.13g/cm <sup>3</sup> @ 25 °C
Viscosity	350-430 cps @ 17°C
Dp	0.14~0.15 mm
Ec	10~11.8 mJ/cm <sup>2</sup>
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	78~85
Flexural modulus, Mpa	ASTM D 790	2,085-2,075
Flexural strength, Mpa	ASTM D 790	81- 88
Tensile modulus, MPa	ASTM D 638	2,611-2,765
Tensile strength, MPa	ASTM D 638	45-52
Elongation at break	ASTM D 638	10 -13%
Poisson`s Ratio	ASTM D 638	0.40-0.45
Impact strength notched Izod, J/m	ASTM D 256	30 - 40
Heat deflection temperature, °C	ASTM D 648 @66PSI	60~72
Glass transition, Tg, °C	DMA, E”peak	65~79
Coefficient of thermal expansion, /°C	TMA(T<Tg)	85~99*E-6
Density, g/cm <sup>3</sup>		1.12~1.18
Dielectric Constant 60 Hz	ASTM D 150-98	4.1~5.1
Dielectric Constant 1 kHz	ASTM D 150-98	3.4~4.2
Dielectric Constant 1 MHz	ASTM D 150-98	3.1~4.1
Dielectric Strength kV/mm	ASTM D 1549-97a	12.7~16.9
Water absorption	ASTM D 570-98	0.25-0.45%

**Note: The use and storage temperature of S-ST9012D should not be too high. Please use it below 25 degrees Celsius; The relative humidity for use and storage of S-ST9012D must be below 38RH%.**