

# Technical Data Sheet

## Product

S-CL7001 Clear Resin

## Product Description

S-CL7001 is a clear SLA resin which has accurate and durable features. It is designed for solid state SLA platforms. S-CL7001 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

- Superior clear, building parts with outstanding clarity and excellent accuracy
- Need less part finishing time, easier post-curing

## 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               | Clear                         |
| Density                  | 1.12g/cm <sup>3</sup> @ 25 °C |
| Viscosity                | 306~415cps @ 25 °C            |
| Dp                       | 0.18 mm                       |
| Ec                       | 9.8-12mJ/cm <sup>2</sup>      |
| Building layer thickness | 0.1mm                         |

### Mechanical Properties of Post-Cured Material

| MEASUREMENT                        | TEST METHOD       | VALUE                  |
|------------------------------------|-------------------|------------------------|
|                                    |                   | 90-minute UV post-cure |
| Hardness, Shore D                  | ASTM D 2240       | 76-83                  |
| Flexural modulus, Mpa              | ASTM D 790        | 2,570-2,854            |
| Flexural strength, Mpa             | ASTM D 790        | 75- 81                 |
| Tensile modulus, MPa               | ASTM D 638        | 2,490-2,628            |
| Tensile strength, MPa              | ASTM D 638        | 44-62                  |
| Elongation at break                | ASTM D 638        | 7-11%                  |
| Impact strength, notched Izod, J/m | ASTM D 256        | 27- 35                 |
| Heat deflection temperature, °C    | ASTM D 648 @66PSI | 40~55                  |
| Glass transition, Tg, °C           | DMA, E'' peak     | 42~60                  |

**Note:** The use and storage temperature of S-CL7001 should not be too high. Please use it below 25 degrees Celsius; The relative humidity for use and storage of S-CL7001 must be below 38RH%.