

# Somos Tough Resin

(Wenext Limited Only)

## Material Introduction



### Introduction

Wenext 8100 resin is our newly introduced DSM Somos low-viscosity photosensitive resin material. Materials in hardness, toughness, The temperature resistance is better than the Wenext 8000. It is widely used and is one of the more popular materials in the market

### Advantages

According to experience, when the thickness of parts is more than 1mm, the hardness, toughness and temperature resistance will be better than Homos resin WeNext 8000. Can be painted, silk screen, electroplating and other post-treatment processes.

### Disadvantage

Not suitable for use as a final product, easy to dirty, compared with Homos resin WeNext 8000, the surface is slightly layered, the color is slightly yellow, and the wall is thin and easy to deform or soften.

### Tolerance

200 $\mu$ m or 0.2%

### Recommendation

High accuracy, strong hardness, good toughness, good temperature resistance, outstanding details.

### Attention >

The material will gradually become yellow and brittle over time in the air especially under sunlight, which will accelerate to become. It is recommended that you keep it in a cool and dry place. The surface of the model is dirty and slightly rough. When the product requires high-temperature resistance and large pressure, nylon, fiberglass and other materials will be more fit in.

## Attributes

Heat deformation (0.46 MPa) (ASTM Method D648) : 60 °C
Heat deformation (1.8 MPa) (ASTM Method D648) : 55 °C
Hardness (Shore D) (ASTM Method D2240) : 82
Tensile strength (ASTM Method D638M) : 56 MPa
Elongation at break (ASTM Method D638M) : 11%
Flexural Modulus (ASTM Method D2240) : 2654 MPa
Tensile modulus (ASTM Method D638M) : 2964 MPa
Notch impact strength (ASTM Method D256A) : 38.9 J/m
Water absorption (ASTM Method D570-98) : 0.4%
Dielectric constant 60 Hz (ASTM Method D150-98) : 3.9
Dielectric constant 1 KHz (ASTM Method D150-98) : 3.7
Dielectric constant 1 MHz (ASTM Method D150-98) : 3.5
Dielectric strength (ASTM Method D149-97a) : 31 kV/mm

## Applications

- **Aerospace:**  
Drone housings and internal parts, spacecraft model housings, parts used in the aviation industry, etc.
- **Structural verification and appearance verification of automotive parts**  
Such as rear-view mirrors, dashboards, steering wheels, lights, seats and handles, and other auto accessories; car navigators, driving recorders, car vacuum cleaners And other automotive supplies.
- **Medical instruments**  
Medical aids, orthopedic insoles, bionic hands, invisible dental braces, hearing aids, etc.
- **Consumer and electronic product structure and appearance verification**  
Such as industrial display panels, cameras, switches, sockets, power tools, electrical instruments, experimental instruments, measuring tools, etc.