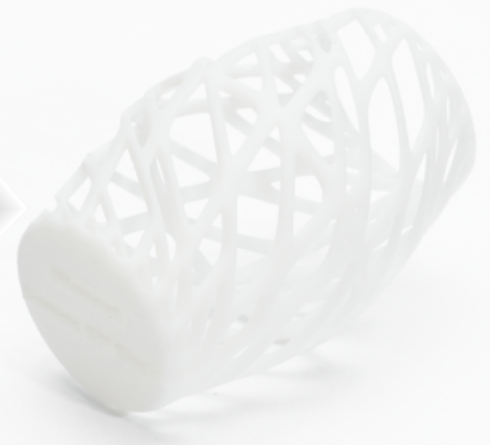


# Somos<sup>®</sup> GP Plus 14122

Material Introduction



## Introduction

Somos<sup>®</sup> GP Plus 14122 resin is the first DSM company's Somos low-viscosity photosensitive resin material introduced in our field because of its high smoothness. Stable performance, wide application, has been trusted and recognized by our customers for a long time, its performance is similar to engineering plastics ABS and PBT.

## Advantages

The surface is smooth and highly accurate. It is waterproof and moisture-proof, and has fast delivery cycles and high cost performance. Passed USP Class VI and ISO10993 Certified. Post-treatment processes such as painting, screen printing, and plating.

## Disadvantage

Slightly worse in strength and toughness than nylon.

## Tolerance

200μm or 0.2%

## Recommendation

It is a low viscosity photopolymer. Used to make sturdy, precise and waterproof components.

## Attention >

The material is left in the air and will gradually become yellow and brittle over time. Especially under sunlight, it will accelerate to become yellow and brittle. suggest you Keep in a cool, dry place. When the product requires high temperature resistance, high pressure, and multiple loading and unloading, it is recommended to choose nylon, glass fiber and other materials.

## Attributes

Heat deformation (1.8 MPa) (ASTM Method D648) : 41 °C
Heat deformation: 46 °C
Hardness: 79
Tensile strength: 35 MPa
Elongation at break (ASTM Method D638M) : 36%
Flexural modulus (ASTM Method D638M) : 2370 – 2650 MPa
Bending strength (ASTM Method D790M) : 67 MPa
Bending modulus (ASTM Method D790M) : 2178 – 2222 MPa
Notch impact strength (GB/T 1843) : 4.9 KJ/m <sup>2</sup>
Notch impact strength (ASTM Method D256A) : 23 – 29 J/m
Water absorption (ASTM Method D570-98) : 0.4%
Poisson ratio (ASTM Method D638M) : 0.41
Dielectric constant 1 KHz (ASTM Method D150-98) : 3.7
Dielectric constant 1 MHz (ASTM Method D150-98) : 3.4
Dielectric strength (ASTM Method D149-97A) : 17.9 kV/mm

## Applications

- Structural and appearance verification of household appliance:  
Air conditioner, air purifier, vacuum cleaner, electric fan, ironing machine, water dispenser, juicer, hair dryer
- Structure and appearance verification of auto parts and supplies:  
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, etc.
- Digital electronic product structure and appearance verification:  
Such as laptops, tablets, mobile phones, digital cameras, game consoles, audio, MP3, mobile power, etc.
- Mechanical and electrical equipment structure and appearance verification:  
Such as industrial display panels, cameras, switches, sockets, power tools, electrical instruments, experimental instruments, measuring tools, etc
- Biomedical devices:  
This material is USP Class VI and ISO 10993 certified and can also be used in certain biomedical, dental and skin contact applications