

# SUMIKA SUPER® S1000

## High-performance Plastics



### Characteristics

#### Heat Resistance

- Continuous use 260°C (500°F)
- Short time 400°C (752°F)

#### Dimension stability

- Low water absorption
- Low linear expansion coefficient

#### Mechanical properties

- Low creep
- Stable mechanical properties at high temperatures

#### Other properties and specification

- Excellent machinability
- Generates minimal burrs when machining fine precision holes.
- Organic solvent resistance, oil resistance
- Flame retardance

### Applications

Probing Jig / Wire probe  
IC Socket  
Block of LCD probe

### Standard Size

| Sheet   |               |      |
|---------|---------------|------|
| L x W   | Thickness     | (mm) |
| 100x100 | 5, 10, 15, 20 |      |
| 200x200 | 5, 10, 20     |      |

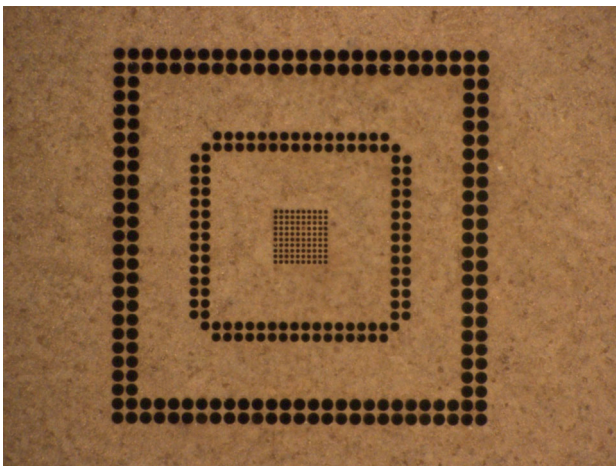
| Rod                 |      |      |
|---------------------|------|------|
| D                   | L    | (mm) |
| φ10, 14, 19, 24, 30 | 1000 |      |

## PHYSICAL PROPERTIES TABLE

| Property                               | Test method<br>ASTM | Unit                 | SUMIKA SUPER®<br>S1000 |
|----------------------------------------|---------------------|----------------------|------------------------|
| Specific gravity                       | D792                | -                    | 1.35                   |
| Water absorption                       | D570                | %                    | 0.04                   |
| Tensile strength                       | D638                | MPa                  | 69                     |
| Tensile elongation at break            | D638                | %                    | 8                      |
| Flexural strength                      | D790                | MPa                  | 100                    |
| Flexural modulus                       | D790                | MPa                  | 3236                   |
| Compressive strength                   | D256                | MPa                  | 144                    |
| Izod impact strength                   |                     | J/m                  | 22                     |
| Rockwell hardness                      | D785                | -                    | R124                   |
| Heat Deflection Temperature at 1.82MPa | D468                | °C                   | 300                    |
| Continuous use temperature             | D648                | °C                   | 260                    |
| Linear expansion coefficient           | D696                | 10 <sup>-5</sup> /°C | 5.1                    |
| Volume resistivity                     | D257                | Ω・m                  | 10 <sup>13</sup>       |
| Dielectric strength(3.2mm)             | D147                | MV/m                 | 18                     |
| Arc resistance                         | D495                | sec                  | 127                    |

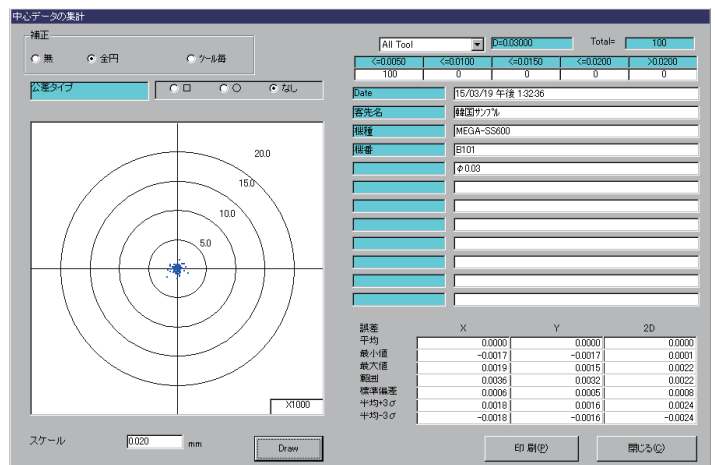
\*The values given above for the properties are representative values given by the manufacturers of the raw materials, and are not guaranteed values for the product.

## ACHIEVEMENT OF FINE HOLE AND PITCH DRILLING



|               |             |           |     |
|---------------|-------------|-----------|-----|
| Hole diameter | 0.03        | Thickness | 0.3 |
| Hole diameter | 0.07        | Thickness | 0.7 |
| Hole diameter | 0.09        | Thickness | 0.9 |
| Wall          | 0.01        |           |     |
| Machine name  | MEGA series |           |     |

unit: mm



### Hole pitch inspection result

100 - Φ0.03 → ±0.0024 mm

128 - Φ0.07 → ±0.0020 mm

208 - Φ0.09 → ±0.0026 mm

Inspection machine:  
Mitsutoyo Quick vision

\*Machined samples and data provided  
by ROKU-ROKU SMART TECHNOLOGY Co., Ltd.

