

## Technical Data Sheet

# Trovidur<sup>®</sup> EC-FR

### Typical characteristics

- Clean Room Material

### Typical industries

- Technika čistých prostor
- Semiconductor Industry
- Semiconductor factory equipment
- Semiconductor Front-End applications
- Semiconductor Front-End Wet Bench

|  | Test method             | Unit                | Guideline value |
|--|-------------------------|---------------------|-----------------|
| <b>General properties</b>  |                         |                     |                 |
| Density  | DIN EN ISO 1183-1       | g / cm <sup>3</sup> | ~1,46           |
| Water absorption   | DIN EN ISO 62           | %                   | 0,2             |
| Cleanroom Materials Flammability Test Protocol (Thickness 6...40 mm) | FM 4910                 |                     | listed          |
| <b>Mechanical properties</b>   |                         |                     |                 |
| Yield stress   | DIN EN ISO 527          | MPa                 | 50              |
| Elongation at break  | DIN EN ISO 527          | %                   | 20              |
| Tensile modulus of elasticity  | DIN EN ISO 527          | MPa                 | 3000            |
| Notched impact strength  | DIN EN ISO 179          | kJ / m <sup>2</sup> | 4               |
| Shore hardness   | DIN EN ISO 868          | scale D             | 82              |
| Ball indentation hardness  | DIN EN ISO 2039-1       | MPa                 | 115             |
| Compressive strength   | DIN EN ISO 604          | MPa                 | 75              |
| Bending strength   | DIN EN ISO 178          | MPa                 | 80              |
| <b>Thermal properties</b>  |                         |                     |                 |
| Thermal conductivity   | DIN EN ISO 8302         | W / (m * K)         | 0,16            |
| Vicat softening temperature  | DIN EN ISO 306, Vicat B | °C                  | 75              |
| Service Temperature  |                         | °C                  | -15 ... +60     |
| Heat deflection temperature  | DIN EN ISO 75           | °C                  | 70              |
| Coefficient of linear thermal expansion                              | DIN EN ISO 11359-2      | mm/m K              | ~0,075          |

|  | Test method       | Unit    | Guideline value   |
|--|-------------------|---------|-------------------|
| Glow wire ignition temperature                     | DIN EN 60695-2-13 | °C      | 990               |
| Glow wire flammability index                       | DIN EN 60695-2-12 | °C      | 960               |
| <b>Electrical properties</b>                       |                   |         |                   |
| Dielectric constant                                | IEC 60250         |         | ~3,2              |
| Dielectric dissipation factor (10 <sup>6</sup> Hz) | IEC 60250         |         | ~0,02             |
| Volume resistivity                                 | DIN EN 62631-3-1  | Ω * cm  | >10 <sup>15</sup> |
| Surface resistivity                                | DIN EN 62631-3-2  | Ω       | >10 <sup>13</sup> |
| Dielectric strength                                | IEC 60243         | kV / mm | 12                |
| Comparative tracking index                         | IEC 60112         | CTI     | 600               |

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