

### Technical Data Sheet



## Sustarin® C red

POM-C

#### Typical characteristics

- Chemical resistant
- Low moisture absorption
- High abrasion resistance
- High tensile strength
- High stiffness
- Good impact strength
- Low creep tendency
- Good machinability
- Good electrical properties
- Good dielectric properties
- Good dimensional stability
- Good sliding properties

#### Typical industries

- Healthcare
- Conveyor Technology & Automation
- Mechanical Engineering Industry
- Electronics
- Vehicle Construction
- Food Industry
- Meat, Fish and Poultry Processing
- Bakery and Confectionery

|                                         | Test method       | Unit                 | Guideline value |
|-----------------------------------------|-------------------|----------------------|-----------------|
| <b>General properties</b>               |                   |                      |                 |
| Density                                 | DIN EN ISO 1183-1 | g / cm <sup>3</sup>  | 1,41            |
| Water absorption                        | DIN EN ISO 62     | %                    | 0,2             |
| Flammability (Thickness 3 mm / 6 mm)    | UL 94             |                      | HB / HB         |
| <b>Mechanical properties</b>            |                   |                      |                 |
| Yield stress                            | DIN EN ISO 527    | MPa                  | 67              |
| Elongation at break                     | DIN EN ISO 527    | %                    | 30              |
| Tensile modulus of elasticity           | DIN EN ISO 527    | MPa                  | 2800            |
| Notched impact strength                 | DIN EN ISO 179    | kJ / m <sup>2</sup>  | 6               |
| Shore hardness                          | DIN EN ISO 868    | scale D              | 81              |
| <b>Thermal properties</b>               |                   |                      |                 |
| Melting temperature                     | ISO 11357-3       | °C                   | 165             |
| Thermal conductivity                    | DIN 52612-1       | W / (m * K)          | 0,31            |
| Thermal capacity                        | DIN 52612         | kJ / (kg * K)        | 1,50            |
| Coefficient of linear thermal expansion | DIN 53752         | 10 <sup>-6</sup> / K | 110             |
| Service temperature, long term          | Average           | °C                   | -50 ... 100     |



|                                        | Test method                 | Unit                     | Guideline value |
|----------------------------------------|-----------------------------|--------------------------|-----------------|
| Service temperature, short term (max.) | Average                     | °C                       | 140             |
| Heat deflection temperature            | DIN EN ISO 75, Verf. A, HDT | °C                       | 110             |
| <b>Electrical properties</b>           |                             |                          |                 |
| Dielectric constant                    | IEC 60250                   |                          | 3,8             |
| Dielectric dissipation factor (50 Hz)  | IEC 60250                   |                          | 0,002           |
| Volume resistivity                     | DIN EN 62631-3-1            | $\Omega \cdot \text{cm}$ | $10^{13}$       |
| Surface resistivity                    | DIN EN 62631-3-2            | $\Omega$                 | $10^{13}$       |
| Comparative tracking index             | IEC 60112                   |                          | 600             |
| Dielectric strength                    | IEC 60243                   | kV / mm                  | 40              |

