

## Technical Data Sheet

## Sustanat® PC GF 20 natural

PC

### Typical characteristics

- High heat deflection temperature
- Self-extinguishing
- Low moisture absorption
- Electrically insulating
- High stiffness
- Good dimensional stability

### Typical industries

- Electronics
- Mechanical Engineering Industry
- Aerospace

|                                         | Test method                 | Unit                 | Guideline value |
|-----------------------------------------|-----------------------------|----------------------|-----------------|
| <b>General properties</b>               |                             |                      |                 |
| Density                                 | DIN EN ISO 1183-1           | g / cm <sup>3</sup>  | 1,33            |
| Water absorption                        | DIN EN ISO 62               | %                    | 0,2             |
| Flammability (Thickness 3 mm / 6 mm)    | UL 94                       |                      | V0 / V0         |
| <b>Mechanical properties</b>            |                             |                      |                 |
| Yield stress                            | DIN EN ISO 527              | MPa                  | 85              |
| Elongation at break                     | DIN EN ISO 527              | %                    | 5               |
| Tensile modulus of elasticity           | DIN EN ISO 527              | MPa                  | 3800            |
| Notched impact strength                 | DIN EN ISO 179              | kJ / m <sup>2</sup>  | 8               |
| Shore hardness                          | DIN EN ISO 868              | scale D              | 85              |
| <b>Thermal properties</b>               |                             |                      |                 |
| Melting temperature                     | ISO 11357-3                 | °C                   | -               |
| Glass transition temperature            | ISO 11357-3                 | °C                   | 150             |
| Thermal conductivity                    | DIN 52612-1                 | W / (m * K)          | 0,22            |
| Coefficient of linear thermal expansion | DIN 53752                   | 10 <sup>-6</sup> / K | 30              |
| Service temperature, long term          | Average                     | °C                   | -30 ... 120     |
| Service temperature, short term (max.)  | Average                     | °C                   | 180             |
| Heat deflection temperature             | DIN EN ISO 75, Verf. A, HDT | °C                   | 138             |
| <b>Electrical properties</b>            |                             |                      |                 |
| Dielectric constant                     | IEC 60250                   |                      | 3,3             |



|                                       | Test method      | Unit                     | Guideline value |
|---------------------------------------|------------------|--------------------------|-----------------|
| Dielectric dissipation factor (50 Hz) | IEC 60250        |                          | 0,01            |
| Volume resistivity                    | DIN EN 62631-3-1 | $\Omega \cdot \text{cm}$ | $10^{15}$       |
| Surface resistivity                   | DIN EN 62631-3-2 | $\Omega$                 | $10^{15}$       |
| Comparative tracking index            | IEC 60112        |                          | 175             |
| Dielectric strength                   | IEC 60243        | kV / mm                  | 35              |

