

Technical data

General Material Properties

| Measurement | Condition | Value |
|--------------------------------|-------------------|------------------------------|
| Average grain size | Laser diffraction | 56 |
| Bulk Density | DIN 53466 | 0,445-0,460g/cm ³ |
| Density of laser-sintered part | EOS-method | 0,9-0,95g/cm ³ |

Mechanical Properties

| Measurement | Condition | Value |
|---------------------------------|------------|---------------------------|
| | DIN EN ISO | |
| Tensile Modulus | 527 | 1700±150N/mm ² |
| Tensile Strength | 527 | 47±3N/mm ² |
| Elongation@Break | 527 | 15±5% |
| Flexural Modulus | 178 | 1240±130N/mm ² |
| Impact Strength(Charpy) | 179 | 53±3.8kJm ² |
| Notched Impact Strength(Charpy) | 179 | 4.8±3.4kJm ² |
| Izod Impact-Strength | 180 | 32.8±3.4kJm ² |
| Izod-Notched Impact Strength | 180 | 4.4±0.4kJm ² |
| Ball indentation Hardness | 2039 | 77.6±2kJm ² |
| Shore D Hardness | DIN 53505 | 75±2kJm ² |

Thermal Properties

| Measurement | Condition | Value |
|----------------------------------|----------------|------------|
| Melting Point | DIN 53736 | 172-180 °c |
| Vicat Softening Temperature B/50 | DIN EN ISO 306 | 163 °c |
| Vicat Softening Temperature A/50 | DIN EN ISO 306 | 181 °c |

Applications

PrimePart® is suitable for the rapid and cost-effective manufacture of models, functional prototypes and end products. This is as well as spare parts that have a balanced relationship between mechanical strength and elasticity over a wide temperature range.