**TECASINT 1000** is an amorphous high-temperature polyimide. Parts made of it excel with a very good dimensional stability. They bear a very high load under temperatures which are unreachable for other plastics. Even under short terms heating up to 350 °C parts made of **TECASINT 1000** do not melt or soften.

**Properties**
- Broad range of temperature from -270 °C up to +300 °C
- In long term service high stability and high creep resistance
- Low outgassing, high purity
- Outstanding radiation resistance
- Electrically insulating
- Excellent slide and wear properties
- Strain resistant
- Good chemical resistance

**Preferred fields**
Mechanical engineering, automotive, conveyor technology, cryotechnology, aerospace, vacuum technology, precision engineering, hot glass technology, electronics, semiconductor

**Applications**
Sliding rails, guide for chains, piston rings, Bearing discs, bushings, seals, insulators, valve seatings, friction rings, hot glass grippers
### Property Values

<table>
<thead>
<tr>
<th>Description</th>
<th>Abbreviation</th>
<th>TECASINT 1011 (SINTIMID PVX)</th>
<th>TECASINT 1011 (SINTIMID 15G)</th>
<th>TECASINT 1031 (SINTIMID 40G)</th>
<th>TECASINT 1041 (SINTIMID 30M)</th>
<th>TECASINT 1611 (SINTIMID 30P)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long term service temperature</td>
<td>°C</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Density (ASTM D 792, DIN EN ISO 1183)</td>
<td>g/cm³</td>
<td>1,34</td>
<td>1,42</td>
<td>1,57</td>
<td>1,48</td>
<td>1,67</td>
</tr>
<tr>
<td>Tensile strength at break (ASTM D 638, DIN EN ISO 527)</td>
<td>MPa</td>
<td>116</td>
<td>97</td>
<td>65</td>
<td>77</td>
<td>82</td>
</tr>
<tr>
<td>Elongation at break (ASTM D 638, DIN EN ISO 527, 23 °C)</td>
<td>%</td>
<td>9</td>
<td>2,8</td>
<td>2,3</td>
<td>2,9</td>
<td>2,8</td>
</tr>
<tr>
<td>Modulus of elasticity after tensile test (ASTM D 638, DIN EN ISO 527)</td>
<td>MPa</td>
<td>4000</td>
<td>4000</td>
<td>4340</td>
<td></td>
<td></td>
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<tr>
<td>Hardness (Shore D, DIN 53505)</td>
<td>H</td>
<td>90</td>
<td>88</td>
<td>85</td>
<td>85</td>
<td>90</td>
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<tr>
<td>Impact resistance (DIN EN ISO 179 (Charpy))</td>
<td>J/Kg</td>
<td>75</td>
<td>35</td>
<td></td>
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<td></td>
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<tr>
<td>Glass transition temperature (DIN EN ISO 3146)</td>
<td>°C</td>
<td>360-375</td>
<td>330</td>
<td>330</td>
<td>330</td>
<td>330</td>
</tr>
<tr>
<td>Short term service temperature</td>
<td>°C</td>
<td>350</td>
<td>350</td>
<td>350</td>
<td>350</td>
<td>350</td>
</tr>
<tr>
<td>Thermal conductivity (23 °C)</td>
<td>W/(K·m)</td>
<td>0,22</td>
<td>0,53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific heat (23 °C)</td>
<td>J/(g·K)</td>
<td>1,04</td>
<td>1,13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coefficient of linear thermal expansion (50-200 °C, DIN 53752)</td>
<td>10⁻⁶</td>
<td>5,0</td>
<td>3,8</td>
<td>3,1</td>
<td>5,1</td>
<td>6,5</td>
</tr>
<tr>
<td>Water absorption (24 h, 23 °C, in water, EN ISO 62)</td>
<td>%</td>
<td>1,08</td>
<td>0,51</td>
<td>0,42</td>
<td>0,72</td>
<td>0,46</td>
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<tr>
<td>Flammability acc. to UL-Standard 94</td>
<td></td>
<td>V0</td>
<td>V0</td>
<td>V0</td>
<td>V0</td>
<td>V0</td>
</tr>
</tbody>
</table>

The information corresponds with current knowledge and indicates our products and possible applications. We cannot give you a legally binding guarantee of the physical properties or the suitability for a specific application. Existing commercial patents are to be taken in account. Please find information concerning the exclusion of liability and Terms and Conditions of Delivery in our Semi-finished products catalogue or at www.ensinger-online.com.

### Stock Program

#### Rods

- **Tolerances:** + 0.2 / + 0.8
- **Diameter:** 6 - 100 mm
- **Stock lengths:**
  - Ø 6-12 mm: 395 mm
  - Ø 12,7-15 mm: 395 mm, 795 mm
  - > Ø 16 mm: 395 mm, 795 mm, 1000 mm.

Other delivery lengths possible, also available ground.

#### Tubes

Available on request.

#### Plates

- **Tolerances:**
  - Thickness 5-20 mm: 0 / + 0.8 mm
  - Thickness 20-60 mm: 0 / 1 mm
  - Thickness 65-100 mm: 0 / 1,5 mm.
- **Thickness:** 5-100 mm
- **Width:**
  - Thickness 5-55 mm: 300 / 395 mm
  - from thickness 60 mm: 300 mm
- **Stock lengths:**
  - Width 300 mm: stock length 1000 mm
  - Width 395 mm: stock length 795 mm

Other delivery lengths possible.