### TECAMID® 66 GF30 black - Stock Shapes (rods, plates, tubes)

#### Chemical Designation
- **PA 66 (Polyamide 66)**

#### Colour
- black

#### Density
- 1.36 g/cm³

#### Fillers
- 30% glass fibres

#### Main features
- Very good mechanical strength
- High heat deflection temperature
- Excellent wear properties
- Resistant to many solvents
- High stiffness
- High fatigue strength
- High strength
- High creep resistance

#### Target Industries
- Power Engineering
- Gear Manufacturing
- Automotive Industry
- Conveyor Technology
- Mechanical Engineering
- Construction Industry
- Others

### Mechanical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Condition</th>
<th>Value</th>
<th>Test Method</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modulus of elasticity (tensile test)</td>
<td>@ 73 °F</td>
<td>800,000 psi</td>
<td>ASTM D638</td>
<td></td>
</tr>
<tr>
<td>Tensile strength</td>
<td></td>
<td>13,500 psi</td>
<td>ASTM D638</td>
<td></td>
</tr>
<tr>
<td>Elongation at break</td>
<td>@ 73 °F</td>
<td>10%</td>
<td>ASTM D638</td>
<td></td>
</tr>
<tr>
<td>Flexural strength</td>
<td>@ 73 °F</td>
<td>19.575 psi</td>
<td>ASTM D790</td>
<td></td>
</tr>
<tr>
<td>Modulus of elasticity (flexural test)</td>
<td>@ 73 °F</td>
<td>700,000 psi</td>
<td>ASTM D790</td>
<td></td>
</tr>
<tr>
<td>Compression strength</td>
<td>@ 73 °F, 10% strain</td>
<td>17,000 psi</td>
<td>ASTM D695</td>
<td></td>
</tr>
<tr>
<td>Compression strength</td>
<td>@ 73 °F, 1% strain</td>
<td>2,900 psi</td>
<td>ASTM D695</td>
<td></td>
</tr>
<tr>
<td>Compression modulus</td>
<td>@ 73 °F</td>
<td>380,000 psi</td>
<td>ASTM D695</td>
<td></td>
</tr>
<tr>
<td>Impact strength (Izod)</td>
<td></td>
<td>1.25 ft-lb/in</td>
<td>ASTM D256</td>
<td></td>
</tr>
<tr>
<td>Rockwell hardness</td>
<td></td>
<td>M 88</td>
<td>ASTM D785</td>
<td></td>
</tr>
</tbody>
</table>

### Thermal properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Condition</th>
<th>Value</th>
<th>Test Method</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting temperature</td>
<td></td>
<td>499 °F</td>
<td>-</td>
<td>(1) Publicly sourced data</td>
</tr>
<tr>
<td>Service temperature Long Term</td>
<td></td>
<td>230 °F</td>
<td>-</td>
<td>(2) Publicly sourced data</td>
</tr>
<tr>
<td>Service temperature Intermittent</td>
<td></td>
<td>338 °F</td>
<td>-</td>
<td>(3) Publicly sourced data</td>
</tr>
<tr>
<td>Thermal expansion (CLTE)</td>
<td></td>
<td>2.7*10⁻⁵ in/in/°F</td>
<td>ASTM D696</td>
<td>(4) Data obtained from public source</td>
</tr>
<tr>
<td>Specific heat</td>
<td></td>
<td>0.3 BTU/in/hr/°F</td>
<td>ASTM D638</td>
<td>(5) Data obtained from public source</td>
</tr>
</tbody>
</table>

### Electrical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Condition</th>
<th>Value</th>
<th>Test Method</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface resistivity</td>
<td></td>
<td>1.0*10¹⁴ Ω/square</td>
<td>ASTM D257</td>
<td>(1) Data obtained from public source</td>
</tr>
<tr>
<td>Volume resistivity</td>
<td></td>
<td>1.0*10¹⁴ Ω/cm</td>
<td>-</td>
<td>(2) Data from public source</td>
</tr>
</tbody>
</table>

### Other properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Condition</th>
<th>Value</th>
<th>Test Method</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moisture absorption</td>
<td>@ saturation, 73 °F</td>
<td>0.30%</td>
<td>ASTM D570</td>
<td></td>
</tr>
<tr>
<td>Moisture absorption</td>
<td>@ 24 hrs, 73 °F</td>
<td>0.25%</td>
<td>ASTM D570</td>
<td></td>
</tr>
</tbody>
</table>

*Data sheet:
ASTM D6779-11 PA0110G30A00000 and ASTM D4066-01a (Reapproved 2008) PA0110G30A00000
Shapes specification: ASTM D6989-11 S-PA0101G305444420

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