### MATERIALS

<table>
<thead>
<tr>
<th>MATERIALS</th>
<th>Max. Length mm</th>
<th>Density g/cm³</th>
<th>Tensile Modulus Mpa</th>
<th>Tensile Strength Mpa</th>
<th>Elongation at Break %</th>
<th>Yield Point Mpa</th>
<th>Thermal Conductivity W/mK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminium AISi10Mg</td>
<td>300</td>
<td>2.7</td>
<td>75000</td>
<td>310</td>
<td>2</td>
<td>170</td>
<td>120</td>
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<tr>
<td>Inconel 718</td>
<td>300</td>
<td>8.2</td>
<td>200000</td>
<td>1250</td>
<td>8</td>
<td>1000</td>
<td>12</td>
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<tr>
<td>Stainless Steel 316L</td>
<td>300</td>
<td>7.85</td>
<td>83000</td>
<td>510</td>
<td>2.2</td>
<td>485</td>
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<tr>
<td>Titanium Ti6AL4V</td>
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<td>4.5</td>
<td>110000</td>
<td>1005</td>
<td>5</td>
<td>900</td>
<td>7</td>
</tr>
<tr>
<td>Tool Steel 1.2709</td>
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<td>8.1</td>
<td>180000</td>
<td>1100</td>
<td>8</td>
<td>1000</td>
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</tbody>
</table>

All figures shown are current as of March 2017

Ref: GMD011

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METALS - Typical Applications

- **Aluminium AISi10Mg**
  Used for manufacturing lightweight prototypes, unique or series production parts in the fields of automotive and aerospace industries with high mechanical and dynamic load.

- **Inconel 718**
  Parts for high temperature applications. Typical uses are turbine construction (aviation or stationary turbines) or exhaust tracts within motor sports applications.

- **Stainless Steel 316L**
  Applications in many technologies, including the automotive industry and in aerospace & maritime engineering. The good mechanical characteristics of stainless steel make it suitable for use in applications exposed to heavy strain, because its high resistance to wear & tear or surface hardening, keep abrasion to a minimum. It can also be used at high operating temperatures.

- **Titanium Ti6AL4V**
  Used for manufacturing lightweight prototypes, unique or series production parts in the fields of motor sports and aerospace industries. Examples of applications: components with integrated cooling structure.

- **Tool Steel 1.2709**
  Ideal for many tooling applications such as tools for injection moulding, die casting of light metal alloys, punching, extrusion etc., and also for high performance industrial and engineering parts, for example in aerospace and motor racing applications.

FINISHING OPTIONS

Standard finish involves the removal of support material and sandblasting. Because of the high density of the materials, mechanical surface finishing or even mirror finish polishing is possible.