Technetics Group has over 25 years of experience in the production of semi-finished and finished PEEK components and solutions. Using a variety of production techniques, we manufacture rods, tubes, and custom shapes for machining and finished components. Our engineers work to the highest standard producing components to the tightest tolerances.

We supply customers across Europe and the world in the following industries:
- Oil and Gas
- Aerospace
- Medical
- Energy
- Automotive
- Electronics
- Semiconductor
- Industrial Engineering

**PEEK PROPERTIES**
- Excellent high temperature performance:
  - Glass transition temperature: 289°F – 324°F (143°C – 162°C)
  - Melt temperature: 649°F – 729°F (343°C – 387°C)
  - Continuous use temperature: 356°F – 500°F (180°C – 260°C)
- Excellent strength, stiffness, long-term creep and fatigue properties
- High abrasion and cut through resistance combined with a low coefficient of friction
- Withstands a wide range of acids, bases, hydrocarbons and organic solvents
- Low moisture absorption, resistant to steam, water and sea water, with low permeability
- Electrical properties which are maintained over a wide frequency and temperature range
- Inherently flame retardant without the use of additives. Low toxicity of combustion gases
- Lightweight, fully recyclable, halogen free, and RoHS compliant

**PRODUCTS**
- Plates
- Discs (Diameters up to 300mm)
- Tubes (Diameters up to 300mm)
- Rods (Diameters 27.6mm - 110mm)
- Rings (Diameters up to 2230mm)
- Custom Shapes

**PROCESS METHODS**
- Injection Moulding
- Transfer Moulding
- Insert Moulding
- Extrusion
- Large Ring Manufacturing

**OUR UNIQUE PEEK RING SOLUTIONS**
- Our extruded & joined rings are more ductile than compression moulded rings
- Finished machined seal comes with excellent flexibility
- Our extruded rings show higher tensile strength compared to compression moulded rings
LARGE EXTRUDED RINGS

- Developed a method of extruding and joining large diameter rings used in the oil and gas industries.
- Our unique production methods enable us to supply rings up to 2.23 meters in diameter (5 meters max diameter possible).
- Currently manufacture large rings in both natural and filled PEEK, for machining.

METAL REPLACEMENT

- Supply near net shape products for machining which are replacing metal components in high performance engines.
- Currently work with and supply some of the highest profile Formula 1 teams helping these customers reduce component weight and improve engine performance.
- Developed our own grade of filled PEEK compound, which is designed to improve stability of the polymer during machining without affecting the performance of the material.

TYPICAL PEEK GRADES

<table>
<thead>
<tr>
<th>Grade Type</th>
<th>Properties</th>
<th>Applications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unfilled natural &amp; black colour</td>
<td>Impact Strength, Ductility</td>
<td>Electrical insulation in sub-sea components, cogwheels, mechanical seals</td>
</tr>
<tr>
<td>Glass fibre filled</td>
<td>Increased Mechanical Strength</td>
<td>Reduction in shrinkage, structural parts such as housings and covers, cogwheels, mechanical seals</td>
</tr>
<tr>
<td>Carbon fibre filled</td>
<td>Increased Mechanical Strength</td>
<td>Reduction in shrinkage, structural parts such as housings and covers, cogwheels, mechanical seals</td>
</tr>
<tr>
<td>Carbon fibre, Graphite &amp; PTFE filled</td>
<td>Self Lubrication, Low Friction, Mechanical Strength</td>
<td>Pump and compressor parts, seals, bearings</td>
</tr>
</tbody>
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