<table>
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<tr>
<th>Compound</th>
<th>Primary Industry</th>
<th>Description/Primary Uses</th>
<th>Features &amp; Benefits</th>
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</thead>
</table>
| Arlon® 1000 | Aerospace Energy Upstream Energy Downstream Semiconductor | • Virgin PEEK  
• Sealing components  
• Back-up rings, wear rings, and bushings  
• CMP retainer rings  
• Guides  
• Slides  
• Engine build-up components (brackets, cable clamps)  
• Retainers  
• Valve components  
• Thermal/electrical insulators  
• Transformer housings  
• Radomes  
• Valves  
• Wafer handling robot end effector pads | • Used for non-pressure-rated contact blocks  
• Meets MIL-P-46183, Type 1  
• Low extractables  
• Good dimensional stability  
• Good wear properties  
• Excellent fire properties (low smoke/flammability, self-extinguishing)  
• Good toughness/impact performance  
• Service temperature range: -65°F (-54°C) to +500°F (260°C)  
• Excellent chemical capability; excellent chemical resistance to all aerospace fluids  
• Certified to ISO 23936/NORSOK M-710 for high sour fluid aging |
| Arlon® 1050 | Energy Upstream | • Virgin PEEK | • Used for PEEK sealing components, such as V-rings  
• High elongation properties  
• Certified to ISO 23936/NORSOK M-710 for high sour fluid aging |
| Arlon® 1160 | Energy Upstream Energy Downstream | • Glass-filled PEEK  
• Valve seats  
• Bearings and back-up rings  
• High-temperature insulators | • High tensile strength  
• Increased shear strength  
• Good for high temperatures  
• Low coefficient of friction  
• Improved wear properties |
| Arlon® 1163 | Aerospace | • Glass-reinforced PEEK  
• Higher strength/stiffness than unreinforced Arlon®, with excellent electrical and thermal isolation performance  
• Landing gear  
• Utility actuation  
• Engines  
• Engine sensor housings, valve housings  
• Engine build-up components (brackets, cable clamps)  
• Electrical connectors | • Meets MIL-P-46183, Type II, Class 3  
• Exceptional chemical and thermal resistance  
• Excellent wear grade material  
• Excellent fire properties (low smoke/flammability, self-extinguishing)  
• Good toughness/impact performance  
• Service temperature range: -65°F (-54°C) to +500°F (260°C)  
• Excellent chemical resistance to all aerospace fluids |
| Arlon® 1240 | Medical | • Carbon-filled PEEK  
• Surgical instrument components (external fixation, targeting guides) | —— |
| Arlon® 1260 | Energy Upstream Energy Downstream Semiconductor Medical | • Carbon-filled PEEK  
• Wear rings and bushings  
• Back-up rings  
• CMP retainer rings  
• Supports  
• Guides  
• Wafer handling robot end effector pads | • High physical properties  
• Excellent wear resistance and chemical compatibility  
• Impact resistant  
• High performance over wide range of operating conditions |

Note: Characteristic metrics are provided as generally accepted industry ranges. Actual ranges may vary, depending on specific industry applications, such as additives, formulations, curatives used, etc.
# PEEK Materials/Advanced Engineering Thermoplastics (AET) Products Table

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<tr>
<td>Arlon® 1261</td>
<td>Aerospace</td>
<td>• Carbon-filled PEEK&lt;br&gt;• Custom shapes (e.g., UAV wing components)</td>
<td>• High temperature resistance&lt;br&gt;• High strength, high rigidity&lt;br&gt;• Low thermal expansion&lt;br&gt;• Good dimensional stability and resistance to various oils, water, and certain chemicals</td>
</tr>
<tr>
<td>Arlon® 1263</td>
<td>Aerospace</td>
<td>• Carbon-reinforced PEEK&lt;br&gt;• Carbon fiber content provides EMI shielding&lt;br&gt;• Bearings and bushings&lt;br&gt;• Structural bearing carriers&lt;br&gt;• Back-up rings&lt;br&gt;• Valve poppets&lt;br&gt;• Custom shapes (e.g., bearing carriers)</td>
<td>• Meets MIL-P-46183, Type II, Class 3&lt;br&gt;• Highest strength and stiffness of injection molding Arlon® grades, with lower weight than glass-reinforced&lt;br&gt;• Excellent fire properties (low smoke/flammability, self-extinguishing)&lt;br&gt;• Good toughness/impact performance&lt;br&gt;• Service temperature range: -65°F (-54°C) to +500°F (260°C)</td>
</tr>
<tr>
<td>Arlon® 1270 LI</td>
<td>Semiconductor</td>
<td>• Low ionic carbon fiber-filled PEEK&lt;br&gt;• CMP retainer rings&lt;br&gt;• Wafer lift pins&lt;br&gt;• Energized seals for high/width temperature range</td>
<td>• Low friction and CTE&lt;br&gt;• High-temperature; chemical, water, and wear resistant&lt;br&gt;• High strength and rigidity</td>
</tr>
<tr>
<td>Arlon® 1286</td>
<td>Aerospace</td>
<td>• Carbon-filled PEEK&lt;br&gt;• Bearings</td>
<td>• Bearing grade material</td>
</tr>
<tr>
<td>Arlon® 1330</td>
<td>Aerospace</td>
<td>• Low-friction, self-lubricating PEEK&lt;br&gt;• Back-up rings&lt;br&gt;• Valve seats&lt;br&gt;• Sealing components&lt;br&gt;• Guides, solenoid guides&lt;br&gt;• Supports&lt;br&gt;• Retainer seals and plugs&lt;br&gt;• Bearings and bushings&lt;br&gt;• Piston rings, wear rings&lt;br&gt;• Scrapers</td>
<td>• Low flexural modulus values&lt;br&gt;• Lowest friction grade (non-lubricated service)&lt;br&gt;• Exceptional wear resistance&lt;br&gt;• Good dimensional stability without addition of carbon fibers&lt;br&gt;• Low extractables&lt;br&gt;• Superior wear properties&lt;br&gt;• Excellent fire properties (low smoke/flammability, self-extinguishing)&lt;br&gt;• Good toughness/impact performance&lt;br&gt;• Service temperature range: -65°F (-54°C) to +500°F (260°C)&lt;br&gt;• Exceptional chemical compatibility</td>
</tr>
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<tr>
<td>Arlon® 1555</td>
<td>Aerospace</td>
<td>• Wear/bearing grade carbon fiber-, graphite-, and PTFE-filled PEEK</td>
<td>• Lowest wear rate, highest PV bearing grade</td>
</tr>
<tr>
<td></td>
<td>Industrial</td>
<td>• Wear rings and bushings</td>
<td>• Reduced thermal expansion, higher loads; reduced CTE</td>
</tr>
<tr>
<td></td>
<td>Energy</td>
<td>• Back-up rings</td>
<td>• High HDT</td>
</tr>
<tr>
<td></td>
<td>Upstream Energy</td>
<td>• Bearings</td>
<td>• Improved tensile and flexural properties</td>
</tr>
<tr>
<td></td>
<td>Downstream</td>
<td>• Rotating components</td>
<td>• High-temperature resistance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Separator pistons</td>
<td>• Good rigidity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Bevel gears</td>
<td>• Low friction and wear</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Thrust washers</td>
<td>• Good dimensional stability and resistance to various oils, water, and certain chemicals</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Custom shapes (e.g., separator piston)</td>
<td>• Excellent fire properties (low smoke/flammability, self-extinguishing)</td>
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<td></td>
<td></td>
<td></td>
<td>• Good toughness/impact performance</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Service temperature range: -65°F (-54°C) to +500°F (260°C)</td>
</tr>
<tr>
<td>Arlon® 3000 XT</td>
<td>Aerospace</td>
<td>• Virgin PEEK, incorporating Green Tweed’s cross-linking technology</td>
<td>• Enhanced mechanical property retention at high temperatures improves performance over current PEEK- and PEKEKK-based solutions</td>
</tr>
<tr>
<td></td>
<td>Industrial</td>
<td>• Back-up rings for HPHT environments</td>
<td>• Increased reliability of critical components over 350°F (177°C)</td>
</tr>
<tr>
<td></td>
<td>Energy</td>
<td>• Harsh oil and gas applications</td>
<td>• Compatible with common aero fluid chemistries; chemical resistance comparable to PEEK</td>
</tr>
<tr>
<td></td>
<td>Upstream</td>
<td>• V-rings</td>
<td>• Superior creep resistance due to cross-linking</td>
</tr>
<tr>
<td></td>
<td>Semiconductor</td>
<td>• Seal-Connect®</td>
<td>• Certified to ISO 23936/NORSOK M-710 for high sour fluid aging</td>
</tr>
<tr>
<td>Arlon® 4020</td>
<td>Energy</td>
<td>• Carbon- and mineral-filled PEEK</td>
<td>• Enables flexible tooth profiles to deliver tight running clearances for increased efficiency</td>
</tr>
<tr>
<td></td>
<td>Downstream</td>
<td>• Labyrinth seals for centrifugal compressors and dry gas seals in oil and gas production, air separation plants, chemical industry, cryogenic refrigeration (LNG)</td>
<td>• Enhanced corrosion and erosion delivers exceptional performance in severe applications, including high-mercury or high-velocity media</td>
</tr>
<tr>
<td>Arlon® 4096</td>
<td>Energy</td>
<td>• Virgin compression-molded PEEK</td>
<td>• Optimized thermal expansion allows for retrofit and like-for-like replacement of conventional metallic designs</td>
</tr>
<tr>
<td></td>
<td>Downstream</td>
<td></td>
<td>• Reduces friction and wear</td>
</tr>
<tr>
<td>Arlon® 4098</td>
<td>Energy</td>
<td>• Carbon-filled PEEK</td>
<td>Used for labyrinth seals</td>
</tr>
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| AR® HT   | Energy Downstream| • Thermoplastic- and carbon-filled PEEK  
• Stationary components: bushings, line shaft bearings, bowl wear rings in sump or river pumps | • Best-in-class abrasion resistance  
• Temperatures from sub-zero to 250°F (121°C) |
| Orthtek® RP | Medical | • Carbon fiber PEEK composite  
• Medical trauma – targeting instruments such as tibial or humeral nail guides  
• Medical orthopedic – surgical instruments and retractors | • Radiolucent  
• Lightweight  
• Good stiffness and strength  
• Withstands steam sterilization and repeat autoclaving  
• Dimensional stability  
• Corrosion resistant  
• Low water absorption |
| Orthtek® WF | Medical | • Continuous carbon-fiber PEEK composite  
• Medical trauma – external fixation and targeting devices  
• Medical orthopedic – reconstructive components, retractors, spine instrumentation, and surgical instrumentation | • Radiolucent  
• Lightweight  
• Withstands steam sterilization and repeat autoclaving  
• High stiffness and strength for application durability  
• Dimensional stability  
• Corrosion resistant  
• Low water absorption |
| WR® 300 | Energy Downstream | • Carbon fiber-filled PEEK composite  
• Stationary and rotating wear components (bushings, bearings, wear rings for pumps) | • General wear resistance  
• Temperatures from sub-zero to 275°F (135°C) |
| WR® 525 | Energy Downstream | • Carbon fiber-filled PEEK composite  
• Stationary and rotating wear components: bushings, bearings, wear rings, shaft sleeves for pumps | • High-pressure/high-temperature wear resistance  
• Temperatures from sub-zero to 525°F (273°C) |
| WR® 575 | Energy Downstream | • Continuous carbon fiber PEEK composite  
• Axial bearings in oil and medium lubricated bearing applications for pumps, compressors, steam and gas turbines, generators | • High corrosion and chemical resistance  
• Excellent shock and impact resistance  
• High-strength and high-load capabilities  
• Temperatures from sub-zero to 482°F (250°C) |

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| Xycomp® 4175 | Aerospace | • Chopped carbon/PEI UD tape composite  
• Doors  
• Covers  
• Fittings  
• Seating and galley components | • Complex-shape metal replacement for structural/semi-structural applications  
• Excellent fire properties (low smoke/flammability, self-extinguishing), meets all FAA/OEM requirements for interior use  
• Good toughness/impact performance  
• Very high carbon fiber content (70% by weight) for excellent stiffness/strength in structural and semi-structural applications  
• Service temperature range: -65°F (-54°C) to +250°F (121°C) |
| Xycomp® 5175 | Aerospace | • Chopped carbon/PEEK UD tape composite  
• Engine build-up components (brackets, housings)  
• Aerodynamic fairings  
• Load-bearing fittings/connectors  
• Access doors  
• Covers  
• Structural frames/components  
• Enclosures | • Complex-shape metal replacement for structural/semi-structural applications  
• Excellent fire properties (low smoke/flammability, self-extinguishing), meets all FAA/OEM requirements for interior use; passes 15-minute/212°F (100°C) burn-through  
• Good toughness/impact performance  
• Excellent resistance to all typical aerospace solvents  
• Very high carbon fiber content (70% by weight) for excellent stiffness/strength in structural and semi-structural applications  
• Compatible for use directly against carbon fiber composite surfaces (no galvanic corrosion against other composites)  
• 43% density reduction vs. aluminum, 80% vs. steel  
• Very low moisture uptake, good hot/wet performance  
• Service temperature range: -65°F (-54°C) to +500°F (260°C) (reduced loads at higher temperatures) |

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