

Shooting/Hunting/Outdoor Sports Polymer Solutions Guide

Materials designed for toughness, strength, chemical resistance, and cosmetics

Materials chosen for firearm components should be dimensionally stable, chemically resistant to gun cleaners, and offer the right balance of impact resistance, stiffness depending on the application. Conventus Polymers provides the industries highest performing polymers for the shooting sports industry, as well as computer aided engineering resources for your next project.

Part	Key Requirements	Solution(s)	Product Description
 <p>BUTT STOCK</p>	<ul style="list-style-type: none"> • High strength • Dimensionally stable • Custom colorable • Excellent drop impact 	<p>DURAMIDE PA6 GF30XSI 30% glass fiber super impact PA6</p>	<p>PA6 GF30XI offers 20% better impact than competitive grades. It also provides superior cosmetics.</p>
 <p>.308/.556 MAGAZINE</p>	<ul style="list-style-type: none"> • Feed lip strength retention • Severe drop test requirements 	<p>DURAMIDE PA66 LGF40MAX Long fiber PA66 with proprietary additives for enhanced impact</p>	<p>Long glass fiber provides unparalleled balance of impact resistance, dimensional stability, and strength. Long carbon fiber is also available for higher strength and lower weight (up to 25% weight reduction).</p>
 <p>LOWER RECEIVER</p>	<ul style="list-style-type: none"> • Very high strength • Cosmetics • Processability • Dimensional stability 	<p>DURAMIDE PA6 LGF30HF Long fiber PA6 with enhanced flow</p>	<p>Long glass fiber reinforced PA6 with very high flow characteristics for complex geometries.</p>
 <p>PISTOL FRAME</p>	<ul style="list-style-type: none"> • Good balance of strength and impact • Cosmetics 	<p>DURAMIDE PA6 GF33HI</p>	<p>Material of choice in pistol grip frames. Offers superior cosmetics to commonly used pistol frame grades.</p>
 <p>LONG GUN STOCK</p>	<ul style="list-style-type: none"> • Weight customization • Cosmetics • High strength 	<p>DURAMIDE PA66LGFCF40MAX 40% long glass fiber and long carbon fiber PA66</p> <p>DURAMIDE SCN12 LCF30 30% Long carbon fiber PA12</p>	<p>This grade provides increased modulus and strength over typical long glass fiber compounds</p> <p>The SCN12 LCF30 provides 60% more strength and 20% less weight than 30% glass fiber PA66.</p>
 <p>.22 SUPPRESSOR</p>	<ul style="list-style-type: none"> • High heat resistance • Thermally conductive • High strength 	<p>DURAPEEK PEEK CF30 30% carbon fiber PEEK</p>	<p>Provides over 700°F (371°C) heat resistance for short periods.</p>

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 <p>9MM/.45 MAGAZINE</p>	<ul style="list-style-type: none"> Extremely high stiffness throughout magazine body, particularly in the lateral direction 	<p>DURAMIDE PPA V1 GFX 50%, 65%, and 70% glass fiber reinforced PPA</p>	<p>Strong and stiff high performance PPA that offers minimal mechanical property changes with exposure to moisture.</p>
 <p>TUNGSTEN FRAME</p>	<ul style="list-style-type: none"> Increased density to reduce recoil upon firing 	<p>DURAMIDE PA12 HSG T Tungsten filled nylon 12</p>	<p>Can be customized to balance weight and material properties</p>
 <p>CLEAR MAGAZINE</p>	<ul style="list-style-type: none"> Clarity Impact strength 	<p>Glass Reinforced DURAMIDE ANGF20S 20% glass filled amorphous nylon</p> <p>Duratough PCSi08FR4U Siloxane PC</p>	<p>Clear with high stiffness and impact, along with DEET resistance</p> <p>-60°C impact resistance, clear</p>
 <p>AMMUNITION</p>	<ul style="list-style-type: none"> Frangible against certain surfaces 	<p>Proprietary copper filled polymer solutions</p>	<p>Conventus can combine numerous metal fillers with polymers to achieve certain effects.</p>
 <p>SHOTGUN ACCESSORIES</p>	<ul style="list-style-type: none"> High strength Dimensionally stable Low moisture uptake 	<p>DURAMIDE PPA V1 GF50 50% glass fiber PPA</p>	<p>Higher strength than standard PA66 with 50% less moisture uptake to reduce dimensional changes due to different environments.</p>
 <p>CROSSBOW RISERS</p>	<ul style="list-style-type: none"> Extremely high stiffness and strength Dimensionally stable Aluminum replacement Lightweight 	<p>DURAMIDE PPA LCF40 40% long carbon fiber PPA</p>	<p>Offers nearly 70,000psi of flexural strength.</p> <p>Excellent dimensional stability and flatness.</p>
 <p>MOLDED HOLSTER</p>	<ul style="list-style-type: none"> Toughness Chemically resistant Similar feel to machined rigid vinyl sheet 	<p>DURALLOY RPVC 2600 Rigid PVC/acrylic alloy</p>	<p>For sheath and holster applications that require properties similar to rigid vinyl sheet.</p>
 <p>TACTICAL OR BUMP HELMET</p>	<ul style="list-style-type: none"> High impact at low temperatures Good dimensional stability 	<p>Duratough PCSi08FR4U Siloxane PC</p>	<p>-60°C impact resistance, clear</p>

USA - New Jersey 2001 Route 46, #310 | Parsippany, NJ 07054 USA | Tel: 973.343.7669

USA - Texas 6431 Cunningham Road | Houston, TX 77041 USA | Tel: 502.396.8070

Email: info@conventuspolymers.com | www.conventuspolymers.com