Engineered for durable 3D printed prototypes and fixtures.
Print with confidence. Print Tough.

- 2X the impact strength of ABS for high durability prototypes
- Ideal for working prototypes and manufacturing aids
- Significantly less warping and curling than ABS without the need for heated build plates
- Highly-machinable for a wide range of post-processing techniques
- More office friendly than ABS
MAKERBOT TOUGH FILAMENT

Engineered for durable 3D printed prototypes and fixtures. Print with confidence. Print Tough.

DURABLE, USABLE PARTS
At 2X the impact strength of ABS, MakerBot® Tough™ filament offers superior durability for industrial prototyping and manufacturing aid applications. With tensile and flexural strength that match ABS, designers and engineers can create parts that hold up under all types of stress.

PRINT WITH CONFIDENCE
MakerBot Tough filament was developed not only for its strength and part performance but also to overcome two of the most glaring issues that hamper ABS: warping and curling. With MakerBot Tough filament, parts can be printed with ease on MakerBot 3D printers without the need for excessive adjustments or tweaking.

MACHINE AND FINISH
The same properties that give MakerBot Tough filament its durability also make it ideal for machining and post-processing. Throw your printed part into the CNC or drill press; tap some threads and bolt on a steel bracket, or sand the surface down and apply paint for a finished presentation piece.

TECH SPECS

PROFORMANCE PROPERTIES

<table>
<thead>
<tr>
<th>Filament</th>
<th>Imperial</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flexural Strength</td>
<td>9,190 psi</td>
<td>63.3 MPa</td>
</tr>
<tr>
<td>Flexural Modulus</td>
<td>343,000 psi</td>
<td>2,364 MPa</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>5,710 psi</td>
<td>39.3 MPa</td>
</tr>
<tr>
<td>Tensile Modulus</td>
<td>395,000 psi</td>
<td>2,723 MPa</td>
</tr>
<tr>
<td>Elongation (%)</td>
<td>2.09 %</td>
<td>2.09 %</td>
</tr>
<tr>
<td>Notched IZOD Hinged (impact)</td>
<td>7.2 ft-lb/in</td>
<td>384 J/m</td>
</tr>
<tr>
<td>Unnotched IZOD Hinged (impact)</td>
<td>47.7 ft-lb/in</td>
<td>2550 J/m</td>
</tr>
</tbody>
</table>

IZOD IMPACT STRENGTH - UNNOTCHED

Available in four colors

SLATE GREY
MP06997

SAFETY ORANGE
375-0009A

STONE WHITE
375-0008A

ONYX BLACK
375-0007A

THERMAL PROPERTIES

| Glass Temp | 140-149°F | 60-65°C |
| Melting Temp | 302-320°F | 150-160°C |
| Nozzle Temp | 419°F     | 215°C   |

Contactez votre distributeur en France www.cadvision.fr info@cadvision.fr

Nos show-rooms:
Paris (Siège social) 01 39 30 65 06
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