

## RESIN - 3DS - Figure 4 Tough 65C Black

Brand: **3D Systems**

Product Code: **3DPR-TOUGH65C-BLACK**



\* Application example



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## RESIN - 3DS - Figure 4 Tough 65C Black

Save on Tooling Costs and Time with Direct Production Plastic Parts

Figure 4<sup>®</sup> Tough 65C Black is a versatile production-grade black material with good impact strength, elongation, and tensile strength. It provides long-term environmental stability with an injection molded-like surface quality.

This material is recommended for high mechanical load-bearing batch production parts, jigs and fixtures, and prototypes that remain stable for years.

This resin features a 70 °C heat deflection temperature and 35% elongation at break and is excellent for buckles, snaps, and clips due to a 6.6% elongation at yield.

Simplified post-processing speeds enable high end-to-end throughput.

Figure 4 Tough 65C Black is tested to 8 years of indoor and 1.5 years outdoor mechanical performance per ASTM D4329 and ASTM G194 methods, ensuring that printed parts remain functional and stable for long periods in real-world conditions.

Isotropic properties:

Figure 4 technology prints parts that are isotropic in mechanical properties meaning the parts printed along either the XYZ axis will give similar results. Parts do not need to be oriented to get the highest mechanical properties, improving the degree of freedom for part orientation for mechanical properties.

Applications:

- \* Load-bearing parts such as handles, cranks, knobs, and levers Structural parts like brackets, snap-fits, and custom fasteners
- \* Small parts requiring detail and accuracy for consumer products, sporting goods, and general use
- \* Latching and board connectors for data devices and white goods
- \* Sensor holders and guides

#### Benefits:

- \* Long-term use parts for indoor and outdoor applications
- \* High elongation at yield for ABS-like snaps, buckles, and clips.
- \* Excellent surface quality, accuracy, repeatability
- \* Fast throughput to finished part; no secondary thermal cure required

#### Features:

- \* Long-term indoor and outdoor environmental stability of mechanical properties; tested out to 8 and 1.5 years (respectively) per ASTM methods
- \* 70°C HDT at 0.455MPa
- \* 35% elongation at break
- \* 6.6% elongation at yield
- \* 31 J/m notched impact strength
- \* 41 MPa tensile strength
- \* Biocompatible-capable per ISO10993-5
- \* UL94 HB flammability

#### Attachments

[Figure 4@ Tough 65C Black Comprehensive Data sheet](#)