

Black Resin

Photopolymer Resin for B9 Core Series

Material Properties

Prepared: 07.11.2018

B9Creations' Black Resin is the ideal material for achieving requirements such as dimensional accuracy, strength, and temperature resistance. This material maintains its shape and dimension through curing and is capable of extreme build speeds, reaching 100+ mm per hour, without sacrificing the surface quality.

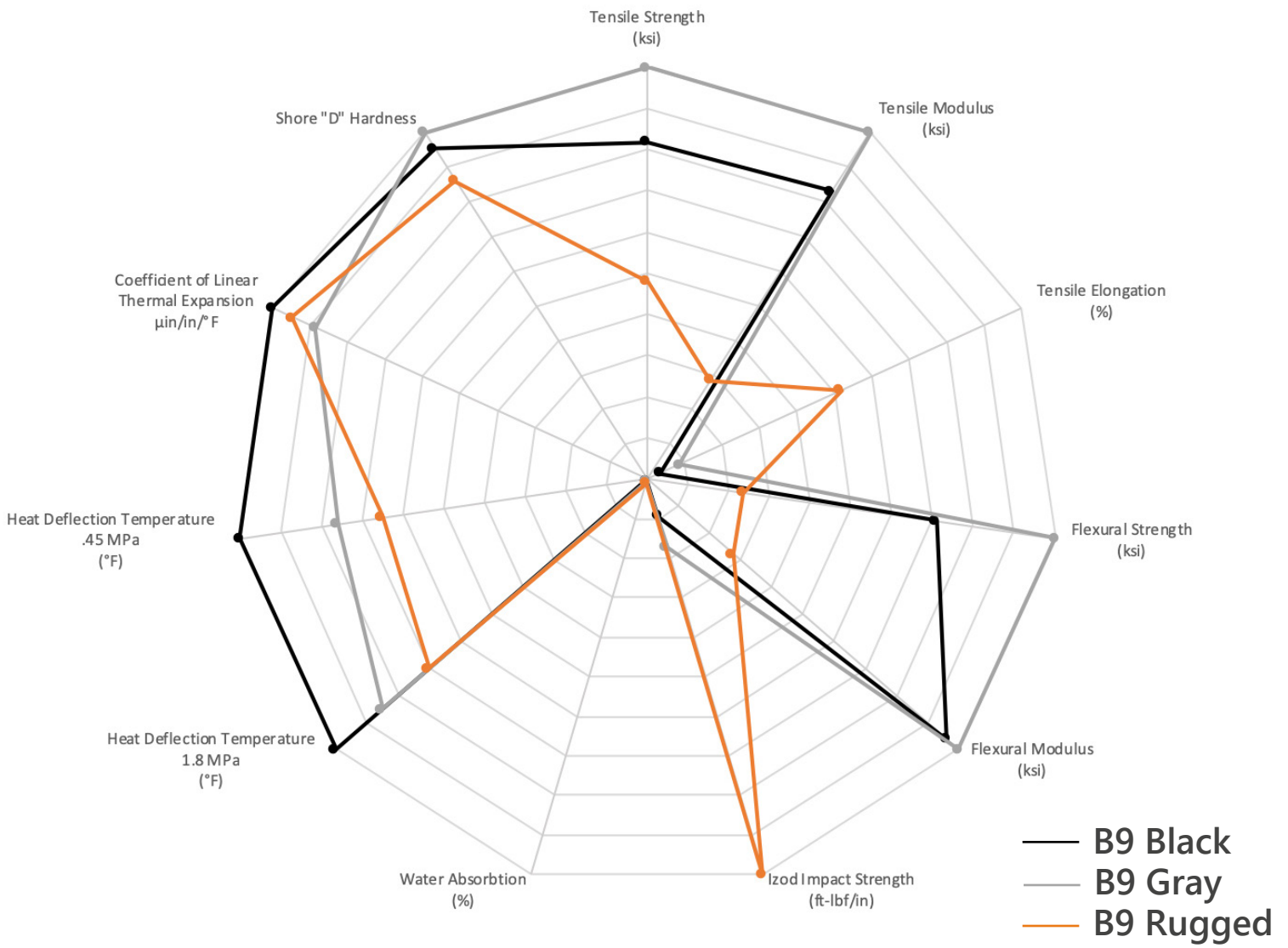
Paired with the B9 Core Series, Black Resin offers incredible detail, perfect for your model's finest features. A high-strength, fast-curing resin, it's also perfect for vulcanized mold-making.

| | METRIC | IMPERIAL | METHOD |
|---------------------------------|-----------------|------------------|---------------------------|
| TENSILE PROPERTIES | | | |
| Tensile Strength | 36.5 MPa | 5.29 ksi | ASTM D638-14 |
| Tensile Modulus | 1750 MPa | 253.82 ksi | ASTM D638-14 |
| Elongation | 3.4% | 3.4% | ASTM D638-14 |
| FLEXURAL PROPERTIES | | | |
| Flexural Strength | 45.0 MPa | 6.53 ksi | ISO 178 (2010) |
| Flexural Modulus | 1.82 GPa | 263.97 ksi | ISO 178 (2010) |
| IMPACT PROPERTIES | | | |
| IZOD Impact Strength | 11.4 J/m | 0.21 ft-lbf/in | ASTM D256-10 |
| TEMPERATURE PROPERTIES | | | |
| Heat Deflection Temp @ 1.80 MPa | 49 °C | 120.2 °F | ISO 75-1, ISO 75-2 (2013) |
| Heat Deflection Temp @ 0.45 MPa | 65 °C | 149 °F | ISO 75-1, ISO 75-2 (2013) |
| Thermal Expansion | 209 µm/m-°C | 116.11 µin/in-°F | ASTM E831-14 |
| SHORE "D" HARDNESS | | | |
| | 83 | 83 | ASTM D2240-15 |
| VISCOSITY | | | |
| | ~300 cP @ 25 °C | ~300 cP @ 77 °F | |
| SPECIFIC GRAVITY | | | |
| | 1.06 | 1.06 | |
| DENSITY | | | |
| | 1.08-1.14 g/mL | 9-9.5 Lbs/Gallon | |

*All results were from samples cured for 5 minutes.

B9Creations Materials

Rugged vs. B9 Black vs. B9 Gray



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