

# Diamond

## An Engineering Material



For a free consultation, visit our website or call us at our headquarters

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DENSITY	3.90 g/cm <sup>3</sup>	Bertagnolli, US Synthetic
COMPRESSIVE STRENGTH	6.9-7.6 GPa	Roberts, Debeers
TENSILE STRENGTH	1.3-1.6 GPa	Cooley, US Synthetic
YOUNG'S MODULUS	841 GPa	Roberts, Debeers
FRACTURE TOUGHNESS	13-15 MPa√m	Jiang Qian, US Synthetic
HARDNESS (Knoop)	49.8 GPa	Debeers
COEFFICIENT OF LINEAR EXPANSION	1.3-3.9, 10 <sup>-6</sup> /°C	Glowka, SNL
COEFFICIENT of FRICTION (PCD on PCD in H <sub>2</sub> O)	0.05-0.08	Sexton, US Synthetic
THERMAL CONDUCTIVITY	543 w/m-K	Lin, UC Berkeley



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