

DATA SHEET

Diamond Like Carbon (DLC)

Diamonex DLC

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Description

Superhard, conformal and low friction coating of amorphous carbon with diamond bonds. Material properties resemble, but do not duplicate, those of natural Diamond

Specifications

- Quality Assurance to:
 - ISO 9001:2000
 - ISO 14001:2004

Prime Features

- Wear/abrasion resistant
- Low Friction
- High surface hardness
- Corrosion resistance
- Gas barrier
- Conformal coatings

MTC Production Capabilities

- Coatings for metals, plastics, glass
- 3 dimensional parts using RF Plasma deposition
- Flat or near flat shapes using Ion Beam, direct deposition
- Prototype, batch and volume production

Typical Markets & Applications

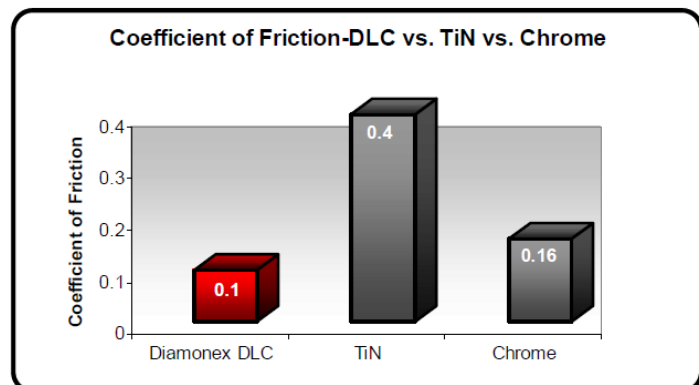
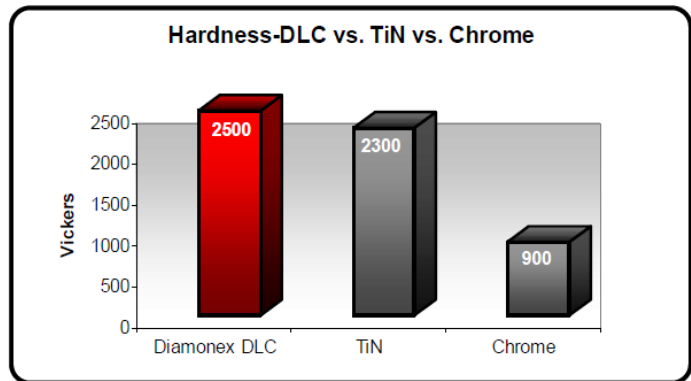
- Aerospace
- Automotive
- Bearings
- Electronics
- Instruments
- Medical/Dental
- Metalworking

Physical Properties

- Hardness (Vickers): 1500-3500
- Coefficient of Friction: <0.1
- Coating thickness: 0.001 – 7um
- Maximum working temperature, °C:
 - Diamonex Standard DLC (in presence of O₂): 450°C
 - Diamonex High Temp DLC (in presence of O₂): 500°C
- Deposition Temperature: <150 °C
- Chemical resistance: Inert

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- Optics
 - Semiconductor
 - Textile
 - Tools/Dies/Molds
 - Wear Parts
- Electrical resistivity, ohm*cm: 106-1012
 - Surface finish: Identical to substrate
- *adjustable



Please note that all values quoted are based on test pieces and may vary according to component design. These values are not guaranteed in anyway whatsoever and should only be treated as indicative and for guidance only. 10.09.2007