CVD for dressing applications

CVD | Properties of CVD diamond

Polycrystalline CVD diamond is chemically inert, has exceptional thermal conductivity, combined with excellent mechanical resistance to wear and thermal oxidation.

These products have been specially designed to offer high resistance to abrasive in dressing and cutting applications, as well as for wear parts. CDK an CDY are suitable for rotary dressing applications. It is usually supplied in the form of rectangular bars of various lengths and cross-sections, but it is also available in custom-made shapes. The growth side can be machined for narrower dimensional tolerances in terms of thickness.

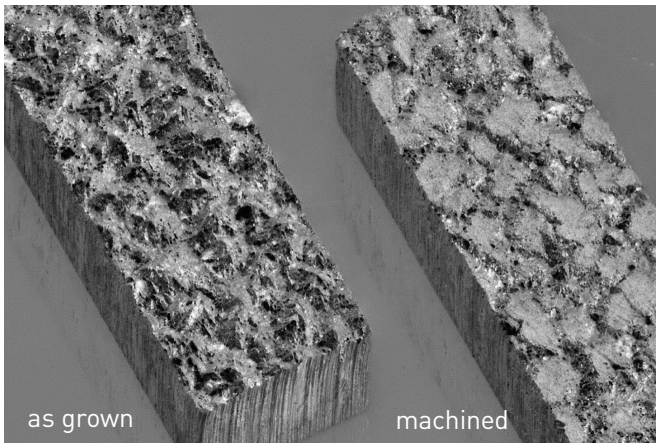
Application Field :

- Dressing Tools

Product characterization :

- Precision laser cut
- Optical 3D control
- Nitrogen content measurement
- True density measurement

PROPERTIES	CVD-CDK Eco	CVD-CDY Premium
COLOR	Translucent / Dark	Translucent
PLASMA TYPE	DC arc plasma jet	DC arc plasma jet
CRYSTAL STRUCTURE	polycrystalline	polycrystalline
THERMAL STABILITY	800°C	800°C
THERMALCONDUCTIVITY	> 8 W/cm.k	> 15 W/cm.k
VICKERS-HARDNESS	8000 HV 10	10000 HV 10
WEAR RESISTANCE RATIO	10-35K	35-55K
BREAKING STRENGHT	450Mpa	600Mpa
YOUNG'S MODULE (GPA)	850	1100



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CDY and CDK

Shape	Shape for price calculatculation	Thickness	Length	Width
Rectangle and Square	Rectangle and Square	⩾ 0.4 mm ⩽ 1.5 mm	Max. 10 mm	Max. 10 mm ⩾ Thickness
Triangle and Trapezoid	Triangle and Trapezoid	⩾ 0.4 mm ⩽ 1.5 mm	Max. 10 mm	Max. 10 mm ⩾ Thickness
Sector	Trapezoid	⩾ 0.4 mm ⩽ 1.5 mm	Max. 10 mm	Max. 10 mm ⩾ Thickness
Round	Square	⩾ 0.4 mm ⩽ 1.5 mm	Max. 10 mm	Max. 10 mm ⩾ Thickness

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