

CVD for dressing applications



CVD-CDY | Properties of CVD diamond

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

This product has been specially developed for high resistance to abrasive wear in dressing applications. CVD-CDY is a grade suitable for rotary dressing applications. It is typically supplied as rectangular bars of various lengths and cross-sections but is also available in customer tailored shapes. The growth side can be machined for narrower dimensional tolerances in terms of thickness.

Product characterization :

Precision laser cut
(customer drawing)

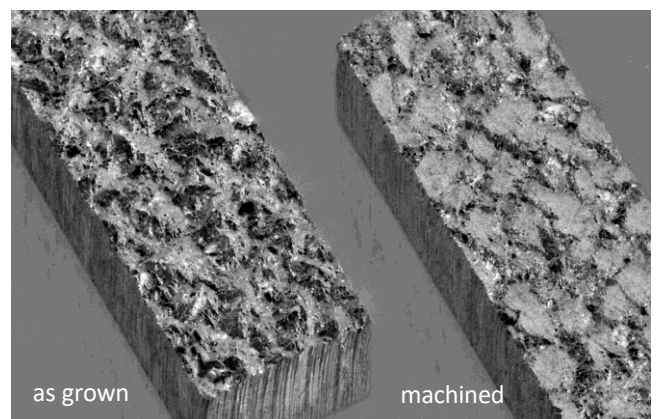
3D control on digital
microscope

Nitrogen content
measurement

True density
measurement



PROPERTIES	CVD-CDY
COLOR	translucent
SYNTHESIS	CVD
PLASMA TYPE	DC arc plasma jet
CRYSTAL STRUCTURE	polycrystalline
THERMAL STABILITY	800°C
THERMAL CONDUCTIVITY	> 15 W/cm.k
VICKERS-HARDNESS	10000 HV 10
WEAR RESISTANCE RATIO	35-55K
DENSITY	3.52 g/cm ³



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Shape	Shape for price calculation	Thickness	Length	Width
Rectangle and Square	Rectangle and Square	$\geq 0.4 \text{ mm}$ $\leq 1.5 \text{ mm}$	Max. 10 mm	Max. 10 mm \geq Thickness
Triangle and Trapezoid	Triangle and Trapezoid	$\geq 0.4 \text{ mm}$ $\leq 1.5 \text{ mm}$	Max. 10 mm	Max. 10 mm \geq Thickness
Sector	Trapezoid	$\geq 0.4 \text{ mm}$ $\leq 1.5 \text{ mm}$	Max. 10 mm	Max. 10 mm \geq Thickness
Round	Square	$\geq 0.4 \text{ mm}$ $\leq 1.5 \text{ mm}$	Max. 10 mm	Max. 10 mm \geq Thickness