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GEMS SUPERABRASIVES

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WHEEL GRIT II



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GBN系列特点及应用 GBN Characteristics and Application

GBN系列黑色晶体 Black mono-crystal of GBN

GBN是昌润极锐的立方氮化硼（CBN）磨料。CBN的硬度仅次于金刚石，由于CBN材料具有良好稳定性，磨削加工过程中不易与黑色金属产生反应，被广泛用于各种工具钢，合金钢的磨削加工。

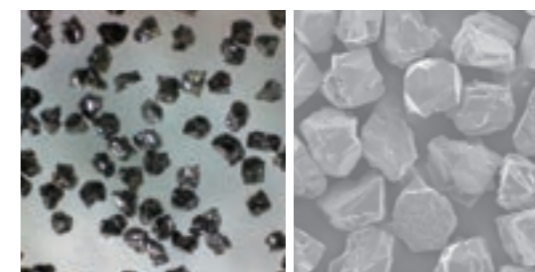
GBN系列磨料分别适用于树脂、金属、电镀、陶瓷等多种结合剂，在机械加工领域能提高工具使用寿命，减少工具的更换次数，提高设备的产能，其优良的锋利性能大大降低设备的使用功率，缩短加工周期从而大大降低成本。良好的导热性能有效防止工件表面烧伤现象，从而很好地提高被加工工件的表面质量和加工精度。

GBN镀覆系列产品可根据不同结合剂、不同使用环境，在磨料表面镀覆不同的材料。镀层能有效的提高磨料与结合剂的把持力，增加导热性及润滑性，使GBN产品发挥出更加卓越的性能。

GBN is the Cubic Boron Nitride (CBN) from Gems. The hardness of CBN is inferior only to diamond. Due to the excellent stability of CBN, it is very difficult to react with ferrous metals during processing. Such kind of advantage provides application in processing of various tool steel and alloy steel.

Different kinds of GBN are applicable for different bonds, including resin, metal, electroplated, vitrified bond. Tool life would be extended with the application of CBN, and such kind of tools need fewer replacements. CBN tools could improve the productivity. Its great sharpness helps to lower down operating power, shorten processing period. These advantages provide remarkable cost reduction. Optimal thermal conductivity effectively prevents the surface from being damaged by heat, and thus improves surface finish and processing accuracy.

Gems Superabrasives offers numerous GBN coatings with reference to different bonds, application environment. Retention could be enhanced with the coatings, while achieving optimal performance with the increase of thermal conductivity and lubricity.



GBN-B8100

黑色晶体，多棱角，具有很高的锋利度，拥有良好的热稳定性，适用陶瓷结合剂，多应用于汽车零部件加工和航空领域。

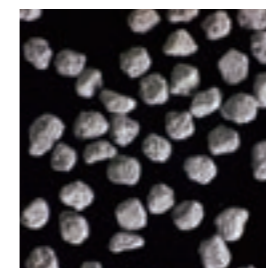
Black, angular crystal has excellent sharpness, and good thermal stability. It is suitable for vitrified bond tools, and widely applied in automobiles and aerospace.



GBN-B8160

是GBN-B8100的镀镍产品，增重量为60%，适用于树脂结合剂。新型化学镀层能大大提高磨料与结合剂之间的把持力，大大提高工具使用寿命，镀层可提高导热性，使产品在树脂结合剂中发挥更加卓越的性能。

This product is made up of a nickel coating bonded to GBN-B8100, with the coating level of 60%. It is suitable for resin bond tools. Retention and life could be improved with such coating. The coating makes improvement on the thermal conductivity and thus to improve the performance of resin bonded tools.



GBN-B8170

是GBN-B8100的镀镍产品，增重量为70%，适用于树脂结合剂。具有GBN-B8160一切优秀性能，适用于重负荷树脂砂轮，可以数倍提高工具使用寿命。

It has a GBN-B8100 core with nickel coating of level 70%. It is suitable for resin bond tools and has all the great performance of GBN-B8160, and is applicable for heavy-duty resin bonded grinding wheels. Tool life could be improved by several times.



GBN系列特点及应用

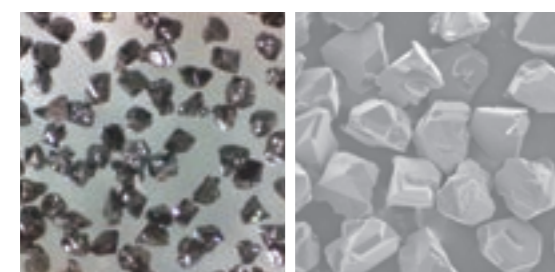
GBN Characteristics and Application

GBN系列特点及应用

GBN Characteristics and Application

GBN系列黑色晶体

Black mono-crystal of GBN



GBN-B8200

黑色块状和多棱角状晶体组成，具有中等冲击韧性，适用于陶瓷、金属结合剂，以及电镀。块状和多棱角状晶体以及高热稳定性使工具具有长寿命的同时兼具良好的锋利度。

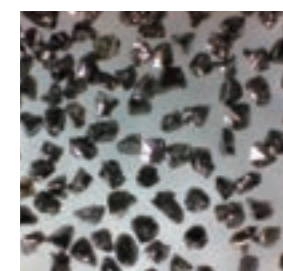
Black crystal with blocky and angular shape, as well as medium toughness, it is widely used in vitrified, metal bonded and electroplating tools. Angular shape and good thermal stability generate balance in long life and good sharpness of the tools.



GBN-B8260

是GBN-B8200的镀镍产品，增重量为60%。适用于酚醛树脂和聚酰亚胺树脂，能大幅度提高把持力，良好的导热性提高产品的加工质量。

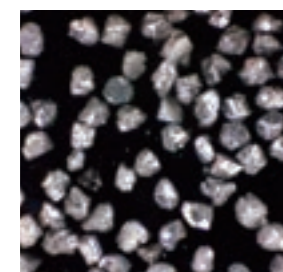
A coated version of GBN-B8200, with nickel coating level of 60%, it is applicable for phenolic and polyimide resin bonds. This coating enhances retention while improves thermal conductivity.



GBN-B8300

黑色单晶，规则块状组成，具有很高的冲击韧性和热稳定性，适用电镀和金属结合剂，应用于冲击力载荷较大的加工场，适合加工各种硬质工具钢，不锈钢等。

Black in color and blocky in shape, it has very high toughness and thermal stability. It is widely applied for electroplating and metal bonded tools in the environment where there is strong impact load. It is applicable for hardened tool steel and stainless steel.



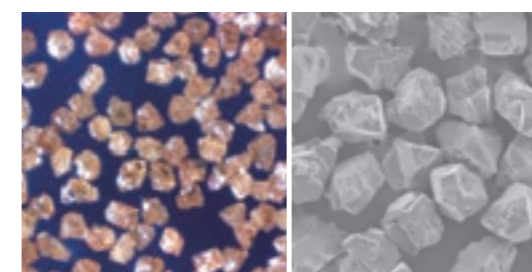
GBN-B8301

是GBN-B8300的镀钛产品，镀层能大大提高磨料与结合剂的把持力，提高工具使用寿命。适用于金属结合剂。

This product has a GBN-B8300 base with a layer of titanium coating. The titanium coating greatly enhances the retention of the crystal and metal bond, while improves the tool life. It is applicable for metal bonded tools.

GBN系列琥珀色晶体

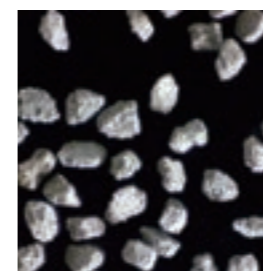
Amber mono-crystal of GBN



GBN-A9100

琥珀色多棱角晶体能提供非常高的锋利度，适用于陶瓷结合剂，负荷小的磨削应用环境。

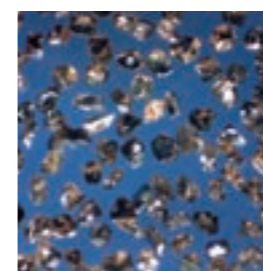
Amber and angular crystal, its angular edge provides high sharpness. It is applicable for vitrified bond while with light duty.



GBN-A9160

GBN-A9100的镀镍产品，增重量为60%，化学镀层增大了结合剂与磨料之间的把持力，同时提高了导热性能，大大提高工具使用寿命，和表面加工质量。适合于树脂结合剂。

It is a nickel coated version of GBN-A9100 with the coating level of 60%. The chemical coating improves retention of bond and crystal, and also the thermal stability, and thus greatly increases life and surface finish of the tools. It is suitable for resin bond tools.



GBN-A9200

由棕色块状和多棱角的晶体组成，具有中等冲击韧性，使用寿命长，具有良好的锋利度，适合陶瓷和金属结合剂，可加工各种合金钢。

Brown, blocky and angular crystal, it is characterized by medium toughness, long life and good sharpness. It is applicable for vitrified and metal bonded tools, and for processing of various alloy steel.



GBN-A9260

GBN-A9200镀镍产品，增重60%，镀镍后的晶体能大大提高树脂结合剂工具使用寿命，适用于负荷相对较大的应用场合。

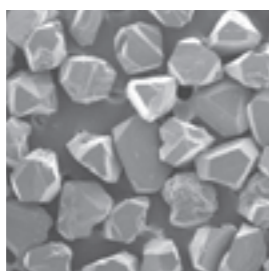
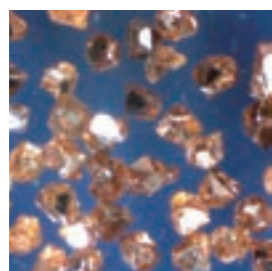
It is a nickel coated crystal with GBN-A9200 as its base. The coating level is 60%. Life of Resin bonded tool would be enhanced after coating. It is suitable for the application under heavy load.

GBN系列特点及应用
GBN Characteristics and Application

GBN系列特点及应用
GBN Characteristics and Application

GBN系列琥珀色晶体
Amber mono-crystal of GBN

韧性、椭圆度与可供粒度
Toughness, Ellipticity & Available Size

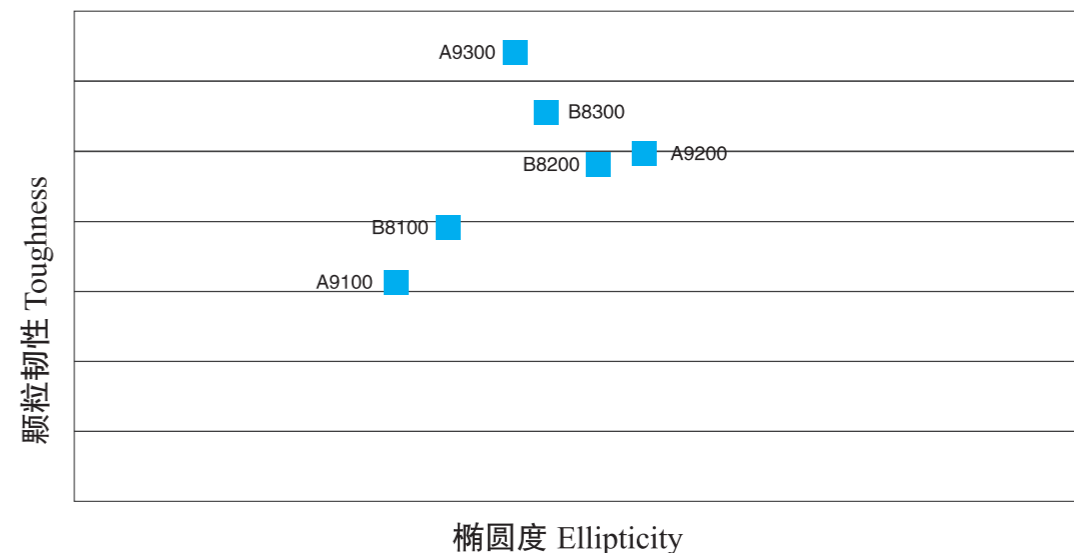


GBN-A9300

琥珀色规则块状组成，具有最高韧性，最高强度，适合电镀，金属结合剂。适用于冲击力非常大的加工场合。广泛应用于航空航天产品加工。

Amber and blocky crystal, it has highest toughness, strength and is suitable for electroplated and metal bonded tools. It is applicable for the condition of strong impact. It is widely used in industry of aerospace.

韧性与椭圆度
Toughness & Ellipticity



GBN-A9370

是 GBN-A9300 复合镀层产品，适用于树脂结合剂。新型化学镀层使磨料发挥更加优秀的性能，大大提高了把持力，工具的使用寿命得以大幅度提高，适合重负荷磨削应用场合。

A compounded coated product with the base of GBN-A9300, its new chemical coating provides a superior performance. Life of resin bonded tool is greatly extended due to the enhanced retention generated by the coating, which are suitable for grinding condition of heavy load.

可供粒度
Available Size

Size	30/40 60/80	80/100	100/120	120/140	140/170	170/200	200/230	230/270	270/325	325/400	400/500
Grade	D602-D252	D181	D151	D126	D107	D91	D76	D64	D54	D46	
GBN-B8100	/	*	*	*	*	*	*	*	*	*	*
GBN-B8160	/	*	*	*	*	*	*	*	*	*	*
GBN-B8170	/	*	*	*	*	*	*	*	*	*	*
GBN-B8200	/	*	*	*	*	*	*	*	*	*	*
GBN-B8260	/	*	*	*	*	*	*	*	*	*	*
GBN-B8300	*	*	*	*	*	*	*	*	*	*	*
GBN-B8301	*	*	*	*	*	*	*	*	*	*	*
GBN-A9100	/	*	*	*	*	*	*	*	*	*	*
GBN-A9160	/	*	*	*	*	*	*	*	*	*	*
GBN-A9200	/	*	*	*	*	*	*	*	*	*	*
GBN-A9260	/	*	*	*	*	*	*	*	*	*	*
GBN-A9300	*	*	*	*	*	*	*	*	*	*	*
GBN-A9370	*	*	*	*	*	*	*	*	*	*	*
GBN-A9301	*	*	*	*	*	*	*	*	*	*	*

注：可根据客户要求定制特殊范围粒度
Note: Special size range could be customer-oriented.



GBN-A9301

GBN-A9300的镀钛产品，能大大提高磨料与胎体之间的结合力，大大提高磨料的使用效率，减少磨削时间，适用金属结合剂，钎焊等制品。

A product of titanium coating while with GBN-A9300 as its core; its coating greatly improves the retention of crystals and matrix. With improved performance, it is applicable for metal bonded tools.