

**MB-Micron**

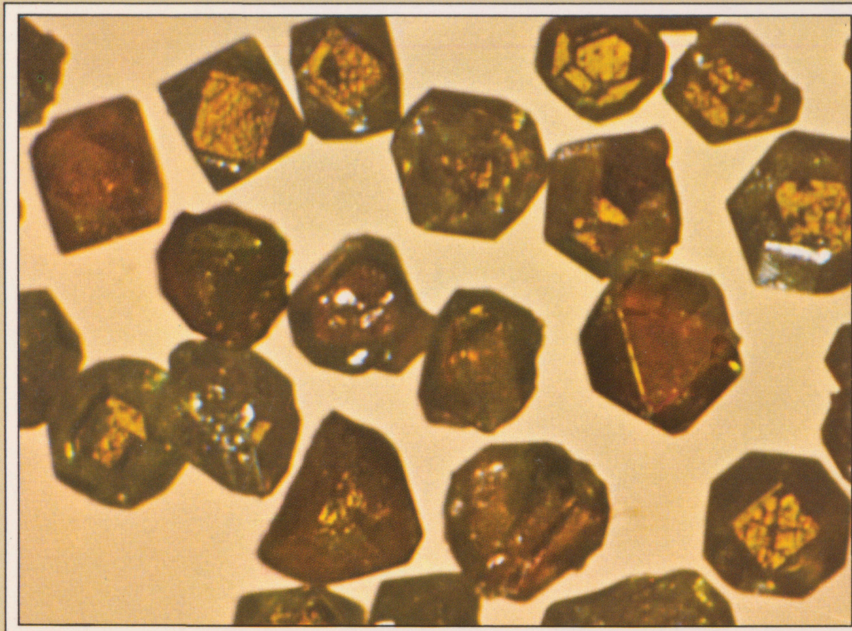
A closely graded MB-Micron powder consisting of blocky particles of lighter coloration which offer higher thermal stability. It is recommended for use in metal bond laps and wheels as well as for a number of lapping and polishing applications.

1200X

**RB-Micron**

This closely graded RB-Micron powder consists of blocky particles of darker coloration. It is used primarily in lower temperature metal bond laps and wheels and for other polishing and lapping applications. Its increasing popularity is due to its basic economic advantage over other micron powders.

1200X



**Metal Bond 100/120**

MB-2 (as illustrated) is a generally blocky material of medium friability. The predominant shape is cubo-octahedral. It is used primarily in the grinding of glass, ceramics, and other hard or brittle materials.

300X



**MEGApax™**

Polycrystalline diamond industrial tool blanks available as fully indexable finished inserts or in a wide variety of metal backed/brazeable blanks that can be shaped as required. They are designed for use on abrasive non-metallics or non-ferrous metal machining applications.

Diamond Abrasives for Resin Bonds

MEGAdiamond



**MEGAdiamond = perfection plus**

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# MEGAdiamond

## MEGAdiamond = Perfection Plus

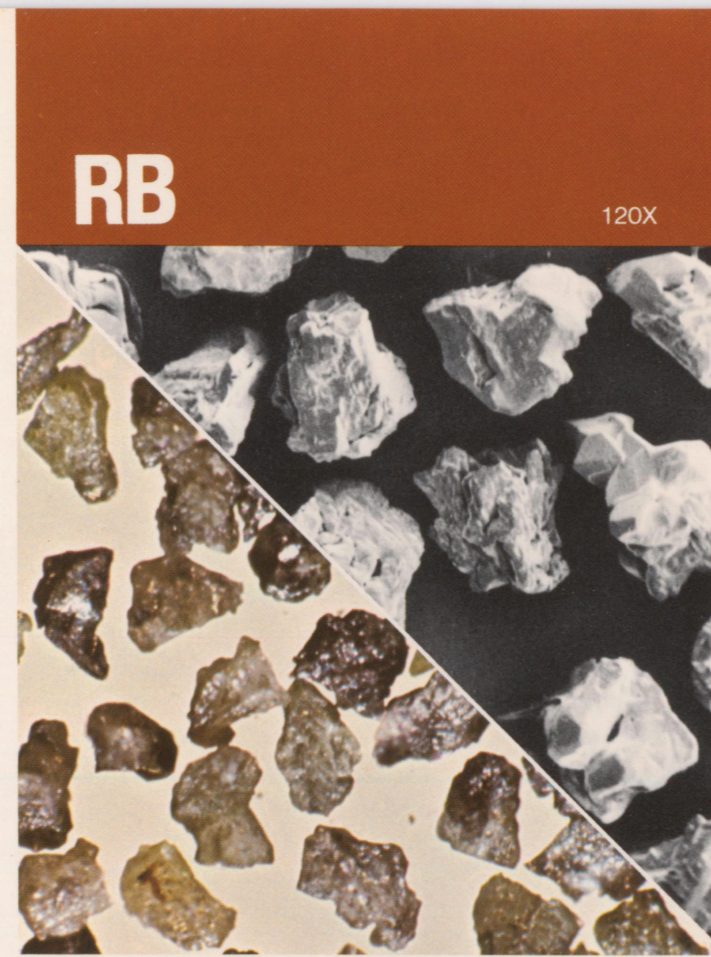
When you buy our industrial diamond grit or polycrystalline diamond tool blanks, you get more than impressive performance. You get consistent product quality in super-abrasives that only a leader in high pressure technology can offer—perfection plus. And that is what makes us different.

Megadiamond's ability to meet the growing world-wide need for a broad line of super-abrasive products is a continuation of our basic research and development commitment. This logical extension from laboratory to market place is predicated on producing consistent high quality products in commercial quantities.

Our experience in synthesizing diamond and developing diamond abrasives is firmly linked to the expertise demonstrated by Dr. H. Tracy Hall, one of our founders. In 1954, Dr. Hall achieved international recognition when he developed the first reproducible process for making synthetic diamonds. Since our founding in 1966, Dr. Hall's direction and contributions have established Megadiamond as an innovative company whose products are competitive in every way. We were the first concern to manufacture polycrystalline diamond, another Dr. Hall invention, which revolutionized the machining of non-ferrous and non-metallic materials.

These past accomplishments demonstrate our ability to develop revolutionary products and to expand our already broad line. We will continue to exercise these innovative skills, to build on our historic commitment, and to provide products of high quality. This is a challenge. One we are confident that we can meet by keeping in touch with your needs.

# MEGAdiamond = perfection plus



80X 100/120

### Applications

MEGAdiamond RB-unclad superabrasive product is effectively used in wet and dry grinding of cemented carbide and cemented carbide/steel combinations where its free-cutting action is essential, and where cooler operating conditions are desired. Other applications include the finishing of silicon carbide, certain ceramics and glass applications, grinding of polycrystalline diamond tools and other hard or abrasive materials.

### Mesh Sizes\*

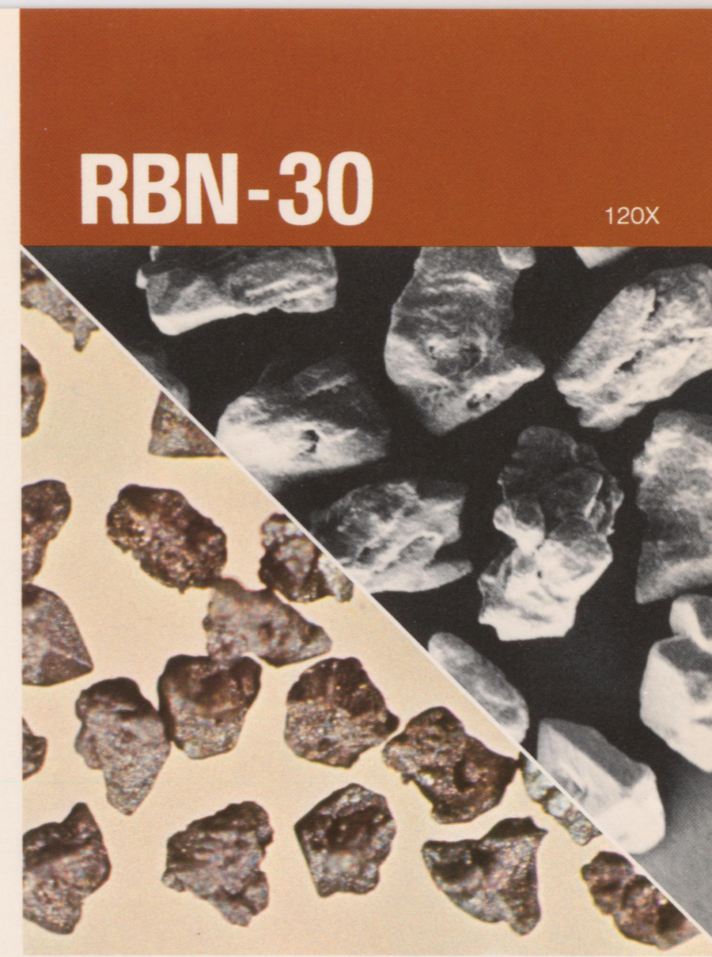
U.S. MESH	FEPA	U.S. MESH	FEPA
40/50	D427	140/170	D107
50/60	D301	170/200	D91
60/80	D252	200/230	D76
80/100	D181	230/270	D64
100/120	D151	270/325	D54
120/140	D126	325/400	D46

\* (This chart shows the cross reference to FEPA designations, and is tested in accordance to ANSI-B.74.16)

### Physical Properties

RB superabrasive diamond crystals are of irregular shapes and are friable, having micro-fracturing characteristics that permit free-cutting action. The irregular surface texture provides excellent crystal retention.

Crystal Density	Nominal Specific Volume
3.5 g/cm <sup>3</sup>	0.28 cm <sup>3</sup> /g



80X 100/120

### Applications

MEGAdiamond RBN-30 is a resin bond diamond prepared with a nickel coating that makes up 30% of its weight. Frequently used when the workpiece has less than 33% steel, RBN-30 provides excellent crystal retention. Usually, it offers longer life than RB, and requires less power than RBN-56.

### Mesh Sizes\*

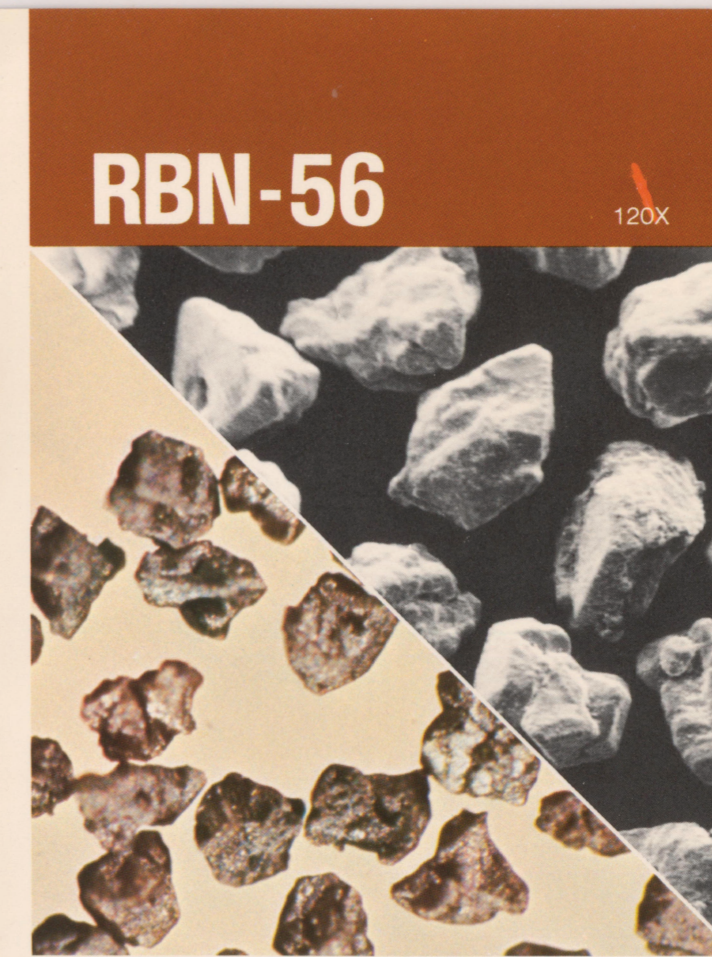
U.S. MESH	FEPA	U.S. MESH	FEPA
40/50	D427	140/170	D107
50/60	D301	170/200	D91
60/80	D252	200/230	D76
80/100	D181	230/270	D64
100/120	D151	270/325	D54
120/140	D126	325/400	D46

\* (This chart shows the cross reference to FEPA designations, and is tested in accordance to ANSI-B.74.16)

### Physical Properties

RBN-30 superabrasive diamond crystals are of irregular shapes and coated with 30% weight of a nickel base alloy. Crystal density is 3.5 g/cm<sup>3</sup>.

Coated Density	Nominal Specific Volume
4.22 g/cm <sup>3</sup>	0.24 cm <sup>3</sup> /g



80X 100/120

### Applications

MEGAdiamond RBN-56 metal-clad superabrasive product is coated with a 56% nickel base alloy. This is the most popular product in the Resin Bonded family, offering the longest wheel life for most applications. It is most frequently used for wet and dry grinding of cemented carbide and carbide/steel combinations. RBN-56 is also used in certain glass and ceramic finishing operations.

### Mesh Sizes\*

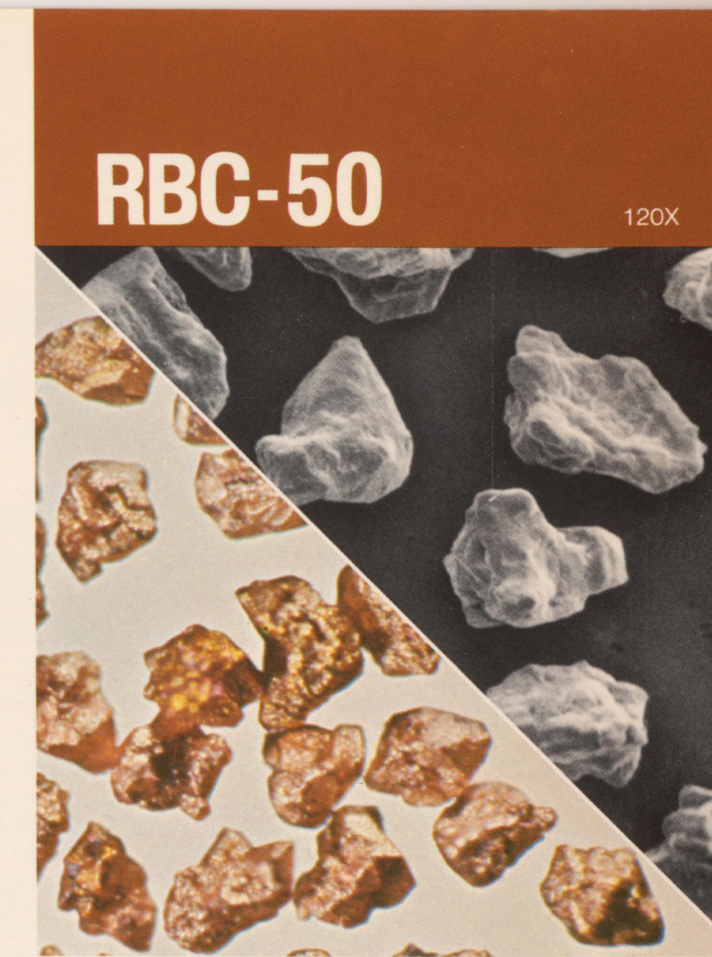
U.S. MESH	FEPA	U.S. MESH	FEPA
40/50	D427	140/170	D107
50/60	D301	170/200	D91
60/80	D252	200/230	D76
80/100	D181	230/270	D64
100/120	D151	270/325	D54
120/140	D126	325/400	D46

\* (This chart shows the cross reference to FEPA designations, and is tested in accordance to ANSI-B.74.16)

### Physical Properties

RBN-56 superabrasive diamond crystals are of irregular shapes and coated with 56% weight of a nickel base alloy. Crystal density is 3.5 g/cm<sup>3</sup>.

Coated Density	Nominal Specific Volume
5.10 g/cm <sup>3</sup>	0.20 cm <sup>3</sup> /g



80X 100/120

### Applications

MEGAdiamond RBC-50 is a copper-clad superabrasive product. Coated with 50% copper by weight, RBC-50 is used almost exclusively for the dry grinding of tungsten carbide.

### Mesh Sizes\*

U.S. MESH	FEPA	U.S. MESH	FEPA
40/50	D427	140/170	D107
50/60	D301	170/200	D91
60/80	D252	200/230	D76
80/100	D181	230/270	D64
100/120	D151	270/325	D54
120/140	D126	325/400	D46

\* (This chart shows the cross reference to FEPA designations, and is tested in accordance to ANSI-B.74.16)

### Physical Properties

RBC-50 superabrasive diamond crystals are of irregular shapes and coated with 50% weight of copper. Crystal density weight 3.5 g/cm<sup>3</sup>.

Coated Density	Nominal Specific Volume
5.00 g/cm <sup>3</sup>	0.20 cm <sup>3</sup> /g