Resin Bond Micron (RB-Micron)

Our RB diamond micron powder is accurately graded from friable resin bond diamond particles and is ideal for all vitrified bond and resin bond (phenolic) systems. WWSA's RB micron consists of uniformly shaped blocky particles carefully graded for carbide, glass and ceramic grinding where surface finish quality is critical.



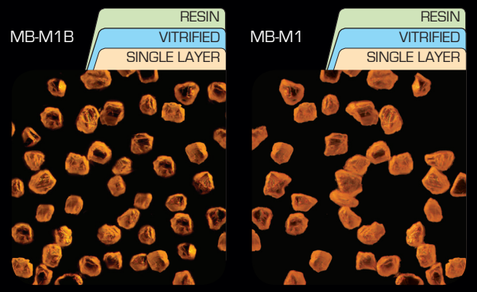
RB-M1
Description

The RB-M1's ability to microfracture allows the crystal to continuously generate new cutting edges. This along with consistent shape and controlled particle distributions, make the RB-M1 an excellent choice.

Micro Size	0-0.25	0-0.5	0-1	0-2	1-2	1-3	2-3	2-4	3-5	5-7	7-10	8-16	10-20	12-22	20-25	20-30	22-36	30-40	40-60
RB-M1																			

Metal Bond Micron (MB-Micron)

Our line of MB diamond micron powders are precisely produced from selected metal bond diamond and are recommended for resin bond (phenolic), vitrified bond and electroplated bond systems.



MB-M1B
Description

An enhanced blocky shaped metal bond micron that delivers a tightly controlled size, shape and surface properties. The presence of consistent uniform crystals makes the MB-M1B a superior micron product.

MB-M1
Description

A blocky shaped, tough metal bond micron with uniform particle distribution and tight oversize control, the MB-M1 is a sound choice when surface finish integrity is critical.

Micro Size	0-0.25	0-0.5	0-1	0-2	1-2	1-3	2-4	3-5	4-6	4-8	6-10	8-12	8-15	10-20	12-22	15-25	20-30	25-35	30-40	40-60
MB-M1																				
MB-M1B																				

Worldwide Solids, LLC - Division of Worldwide Superabrasives, LLC
2921 NW Commerce Park Drive, Boynton Beach, FL 33426
Tel: 954.828.9650 / Fax: 954.828.9651
Toll Free: 888.410.1631 / Fax: 888.410.1630
Email: sales@worldwidesolids.com
Web: www.wwsa.com

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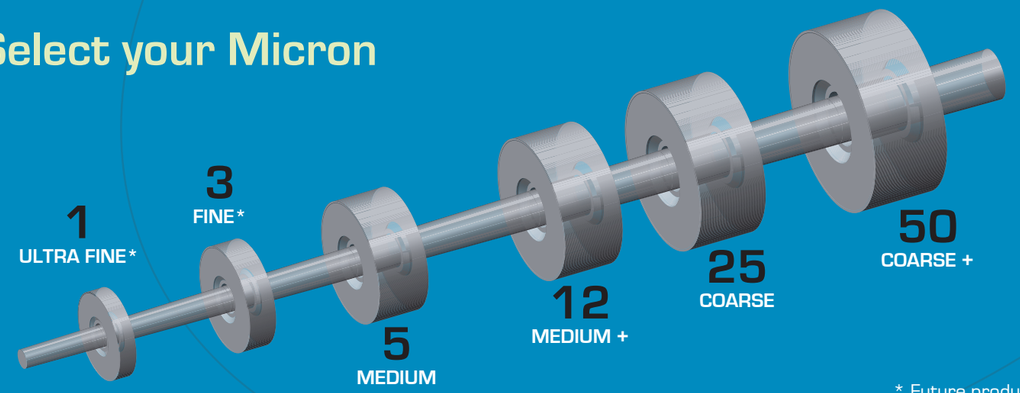
Worldwide Solids

WWSA's highly specialized technique of using a multi-modal diamond while tightly controlling the average particle spread offers a uniquely sintered polycrystalline diamond wire die blank. WWDB product provides an excellent surface finish while maximizing die life for all wire drawing applications.

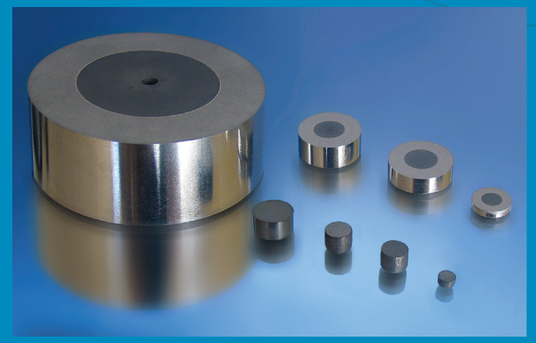
Select your Series

Series	Support Ring	Aplications
S	Self Supported	General purpose wire drawing applications
TS	Self Supported Thermally Stable	High temperature mounting and drawing applications
CS	Carbide Supported	Hard wire drawing application, support ring added for additional die strength

Select your Micron



* Future products



WWDB-1805CS

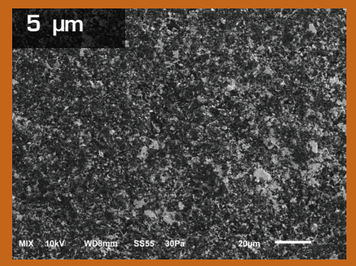
How to Select Die Blank

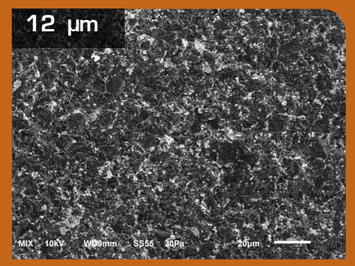
WWDB=Worldwide Wire Die Blank (WWSA product identifier)
18=D18 (ADDMA standard size)
05=5 micron (Diamond average particle size)
CS=Carbide Supported (Type of PCD die blank)

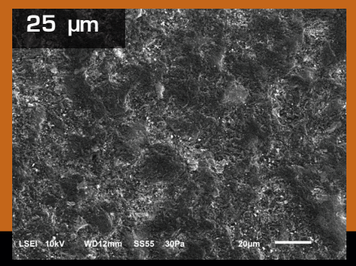
WWDB CS Series

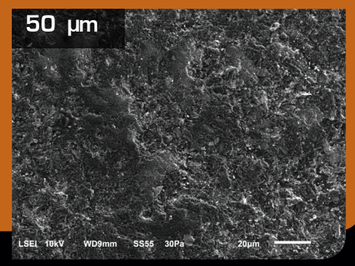
ADDMA	WWSA Products	Series	Dimensions				Estimated Max Bearing	Concentricity (mm)	Perpen-dicularity	Micron Size Available				
			Ød	ØD	T	Ø				3	5	12	25	50
Tungsten Carbide Supported Die Blanks														
D12	WWDB-12	CS	4.2	8.12	1.5	0.10	1.0	0.25	0.05	*	.	*	.	*
D15	WWDB-15	CS	4.2	8.12	2.3	0.10	1.6	0.35	0.08	*	.	.	.	*
D18	WWDB-18	CS	4.2	8.12	2.9	0.10	2.0	0.35	0.1	*	.	.	.	*
D21	WWDB-21	CS	6.8	13.65	3.8	0.15	3.2	0.46	0.13	*	.	.	.	*
D24	WWDB-24	CS	6.8	13.65	5.3	0.15	4.5	0.46	0.19	*	.	.	.	.
D27	WWDB-27	CS	12.9	26.6	8.7	0.25	5.9	0.50	0.3		.	.	.	.
D30	WWDB-3013	CS	12.9	26.6	12.0	0.25	7.8	0.50	0.42			.	.	.
D30	WWDB-3015	CS	15.2	26.6	12.1	0.25	9.1	0.50	0.42				.	.
D30	WWDB-3018	CS	18.2	30.0	13.5	0.5	11.3	0.60	0.47				.	.
D33	WWDB-3315	CS	15.2	26.6	15.1	/	/	/	/				*	*
D33	WWDB-3318	CS	18.2	30.0	15.5	/	/	/	/				*	*
D33	WWDB-3418	CS	18.2	30.0	17.5	/	/	/	/				*	*
D36	WWDB-3416	CS	24.5	50.0	16.0	/	/	/	/				*	*
D36	WWDB-3518	CS	24.5	50.0	18.0	/	/	/	/				*	*
D36	WWDB-3520	CS	24.5	50.0	20.0	/	/	/	/				*	*
D36	WWDB-3618	CS	30.0	50.0	18.0	/	/	/	/					*
D36	WWDB-3620	CS	30.0	50.0	20.0	/	/	/	/					*

Order Key; If ordering D18, Carbide Supported and 5 micron wire die blank=WWDB-1805S
· Current Products, * future products, / does not apply, Ød diamond diameter,
ØD outside diameter of blank, T blank thickness, Ø roundness.









5µm grade offers a medium diamond grain size. This is effective for a wide variety of wire drawing applications that require high surface finish with good die life expectations.

12µm grade offers a medium to course diamond grain size. This offers a good surface finish and higher die life expectations.

25µm offers a course diamond grain size. This grade is targeted at drawing applications that require a higher diamond toughness and long die life.

50µm has extra course diamond grain size. This grade offers extreme wire die wear resistance.

WWSA offers state of the art inspection equipment to evaluate all WWDB PCD products. Our JOEL SEM with EDAX allows us to analyze each grain structure to insure even diamond and catalyst distribution confirming consistent performance. In addition, all of our WWDB PCD products are tested with a Sonoscan D9600 equipped with the STaR™ feature (Simultaneous Transmission and Reflection). This transmission mode allows WWSA to view completely through the WWDB products, indicating any internal defects, stresses, and layer interface issues.

WWDB S & TS Series

ADDMA	WWSA Products	Type	Dimensions				Estimated Max Bearing	Perpen-dicularity	Micron Size Available				
			Ød	ØD	T	Ø			3	5	12	25	50
Free Standing Metal Filled Die Blanks													
D6	WWDB-06	S	3.2	/	1.0	/	0.5	0.13	*	.	.	.	
D12	WWDB-12	S	3.2	/	1.5	/	1.0	0.13	*	.	.	.	
D15	WWDB-15	S	5.2	/	2.5	/	1.5	0.25	*	.	.	.	
D18	WWDB-18	S	5.2	/	3.5	/	2.0	0.25	*	.	.	.	
D21	WWDB-21	S	7.2	/	4.0	/		0.25	*	.	.	.	
Thermally Stable Die Blanks													
D6	WWDB-06	TS	3.2	/	1.0	/	0.5	0.13	*	.	.	*	
D12	WWDB-12	TS	3.2	/	1.5	/	1.0	0.13	*	.	.	*	
D15	WWDB-15	TS	5.2	/	2.5	/	1.5	0.25	*	.	.	*	
D18	WWDB-18	TS	5.2	/	3.5	/	2.0	0.25	*	.	.	*	

Order Key; If ordering D18, Carbide Supported and 5 micron wire die blank=WWDB-1805S
· Current Products, * future products, / does not apply, Ød diamond diameter,
ØD outside diameter of blank, T blank thickness, Ø roundness.

Toughness and Die Life vs. Grain Size

