

SYNDIA® RESIN BOND TYPE MICRON DIAMOND POWDERS

Typical fracturing mode of a SYNDIA® resin bond type particle.



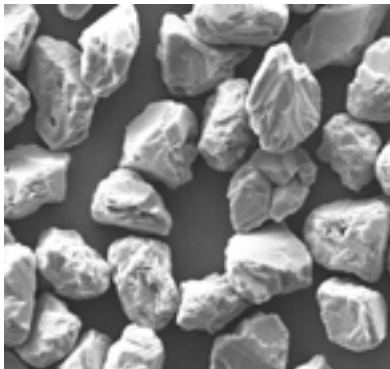
The strength and wear properties of diamond particles are mainly determined by their crystalline structure. SYNDIA® resin bond micron diamond powders have a multi-crystalline structure that increases their micro-fracturing ability and therefore their grinding performance.

SYNDIA® SYV | LOW FRIABILITY

SYV consists of multi-crystalline particles with high toughness and a high level of heat resistance. SYV is therefore extremely suitable for ceramic bonds. Despite its high toughness level, it is remarkably self-sharpening.

It is recommended for the machining of difficult to grind technical ceramics, like Sapphire, Silicon Carbide and Silicon Nitride, with ceramic bonded tools.

SYV 30-40 300X



SYNDIA® RBM | MEDIUM FRIABILITY

RBM is the ECO resin bond micron diamond product. Due to its crystalline properties and high crystal surface roughness, RBM is particularly suitable for all types of resin bonded wheels and tools. It is also recommended for lapping and polishing carbides, ceramics, plastic materials, natural stones and other hard materials.

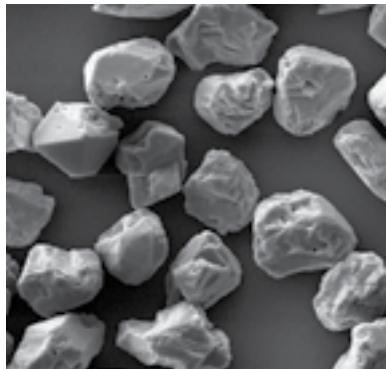
Also available:

RBM-56Ni - 56% nickel coating

RBM-30Ni - 30% nickel coating

RBM-50Cu - 50% copper coating

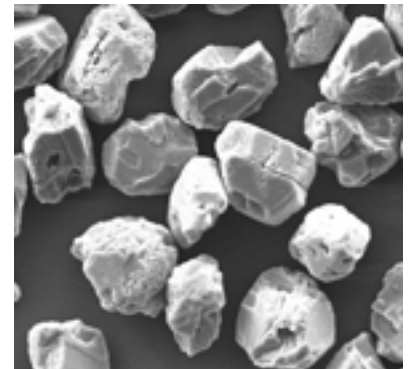
RBM 30-40 300X



SYNDIA® SYR | HIGH FRIABILITY

SYR is a precision graded, unique premium product in the resin bond type micron powder range. It is therefore extremely suitable for the machining of difficult to grind materials, where high material removal rates, excellent surface finish and surface geometry are required. Due to its exceptional self-sharpening properties, SYR is particularly suitable for double-sided grinding and polishing applications.

SYR 30-40 300X





D50 - MEDIAN SIZE	SYV	RBM	SYR
53.0	SYV 40-60	RBM 40-60	SYR 40-60
46.0	SYV 40-50	RBM 40-50	SYR 40-50
36.0	SYV 30-40	RBM 30-40	SYR 30-40
32.5	SYV 30-40F	RBM 30-40F	SYR 30-40F
29.0	SYV 22-36	RBM 22-36	SYR 22-36
24.0	SYV 20-30	RBM 20-30	SYR 20-30
19.0	SYV 15-25	RBM 15-25	SYR 15-25
14.0	SYV 10-20	RBM 10-20	SYR 10-20
11.5	SYV 8-16	RBM 8-16	SYR 8-16
8.00	SYV 6-12	RBM 6-12	SYR 6-12
6.80	SYV 5-10	RBM 5-10	SYR 5-10
5.70	SYV 4-8	RBM 4-8	SYR 4-8
4.80		RBM 4-6	
4.00	SYV 3-6	RBM 3-6	SYR 3-6
3.00	SYV 2-4	RBM 2-4	SYR 2-4
2.00		RBM 1-3	
1.41		RBM 1-2	

PROPERTIES	SYV	RBM	SYR
GRADING	precision	standard	precision
SYNTHESIS	HPHT	HPHT	HPHT
CRYSTAL STRUCTURE	multi-crystalline	multi-crystalline	multi-crystalline
PARTICLE SHAPE	semi-blocky	semi-blocky	semi-blocky
FRACTURING MODE	micro-fracture	micro-fracture	micro-fracture
SURFACE STRUCTURE	rough	rough	rough
IMPACT RESISTANCE	low to medium	low	low
PURITY	> 99.5%	> 98.0%	> 99.5%
BONDING SYSTEMS	PH, PO, VI, MB	PH, PO, VI, MB	PH, PO
DENSITY	3.52 g/cm ³	3.52 g/cm ³	3.52 g/cm ³