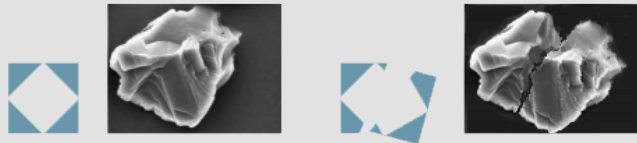


SYNDIA[®] METAL BOND TYPE MICRON DIAMOND POWDERS

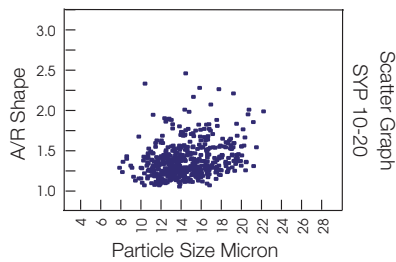
Typical fracturing mode by cleavage of a SYNDIA[®] metal bond particle.



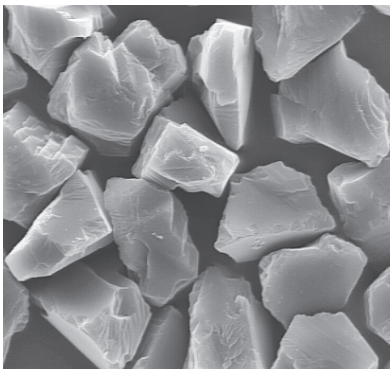
Each Van Moppes metal bond type monocrystalline micron diamond powder range is differentiated relative to the others by way of the exact choice of raw material and the monitoring of its particle shape, in order to match its application requirements.

SYNDIA[®] SYP | POLISHING

The SYP polishing size range contains very blocky particles, yet retaining sharp cutting edges. Through its very blocky particle shape, it withstands the high workloads resulting from any lapping and polishing applications. It is the good choice for high precision tools.

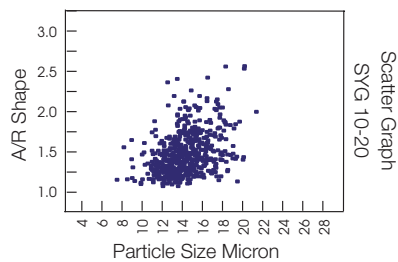


SYP 6-10 2000X

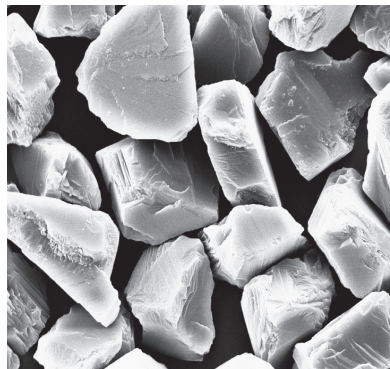


SYNDIA[®] SYG | GRINDING

The SYG grinding range has been specially developed for metallic, electroplated and vitrified bonds. Its particle shape lies in a defined tolerance range between blocky and irregular. Its more aggressive particle shape guarantees excellent abrasive performance with good particle retention.

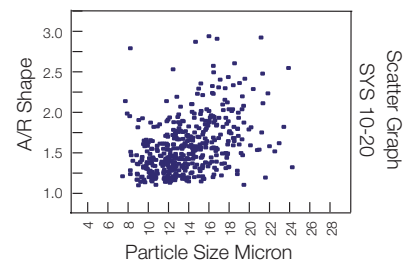


SYG 10-20 1500X

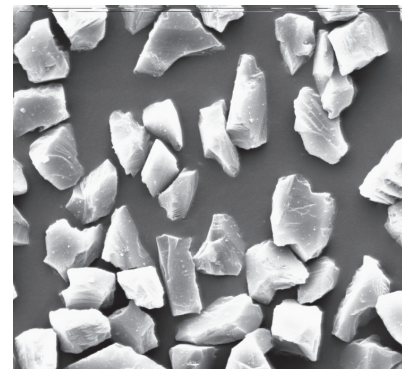


SYNDIA[®] SYS | SHARPCUT

The SYS 'Sharpcut' range is of a slightly more friable nature, with even sharper particles to suit the most difficult grinding applications, particularly when the workpiece material or working conditions demand lowest cutting forces. SYS is suitable for all bond types.



SYS 4-8 1500X





D50 - MEDIAN SIZE	SYP	SYG	SYS
92.5		SYG 70-120	
82.5		SYG 60-100	
78.0		SYG 60-90	
69.5		SYG 54-80	
61.0		SYG 45-70	
53.0		SYG 40-60	
46.0		SYG 36-54	
41.0		SYG 35-45	SYS 35-45
36.0		SYG 30-40	SYS 30-40
32.5		SYG 30-40F	SYS 30-40F
29.0		SYG 22-36	SYS 22-36
24.0		SYG 20-30	SYS 20-30
21.0		SYG 15-30	
19.0		SYG 15-25	SYS 15-25
16.0		SYG 12-22	
14.0		SYG 10-20	SYS 10-20
11.5	SYP 10-15	SYG 10-15	SYS 10-15
9.5	SYP 8-12	SYG 8-12	SYS 8-12
8.0	SYP 6-10	SYG 6-10	SYS 6-10
6.8	SYP 5.5-8	SYG 5.5-8	SYS 5.5-8
5.7	SYP 4.5-7	SYG 4.5-7	SYS 4.5-7
4.8	SYP 4-6		SYS 4-6
4.0	SYP 3-5		SYS 3-5
3.3	SYP 2.5-4		SYS 2.5-4
3.0	SYP 2-4		SYS 2-4
2.8	SYP 2.25-3.5		SYS 2.25-3.5
2.38	SYP 2-3		SYS 2-3
2.00	SYP 1.5-2.5		SYS 1.5-2.5
1.68	SYP 1.25-2.25		SYS 1-2
1.41	SYP 1-2		SYS 1-1.5
1.19	SYP 1-1.5		
1.00	SYP 0.75-1.25		

For Sub-Micron Sizes please check data sheet 'Submicron Diamond Powders'

PROPERTIES	SYP	SYG	SYS
GRADING	precision	precision	precision
SYNTHESIS	HPHT	HPHT	HPHT
CRYSTAL STRUCTURE	monocrystalline	monocrystalline	monocrystalline
PARTICLE SHAPE	blocky	semi-blocky	irregular
FRACTURING MODE	macro-fracture	macro-fracture	macro-fracture
SURFACE STRUCTURE	less angular	angular	sharp
IMPACT RESISTANCE	high	high	medium
PURITY	> 99.5%	> 99.5%	> 99.5%
BONDING SYSTEMS	VI, MB, EP	VI, MB, EP	MB, EP, VI, PH, PO
DENSITY	3.52 g/cm ³	3.52 g/cm ³	3.52 g/cm ³