



VID

GLASSPARTNER

The Synthetic Diamond Technology

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**■ DIAMOND WHEELS FOR GRINDING
OF TUNGSTEN CARBIDE KNIVES**





2015

Diamond grinding wheels

Resin bonded synthetic diamond grinding surface

About the synthetic diamond

The synthetic diamond originates through the action of high pressure and temperature on the natural graphite. Through various levels of pressure and temperature different degrees of hardness of the synthetic diamond grain are achieved. The requested grit size is then achieved through crushing, grinding, sifting and rinsing.

Diamond is the hardest known material and in the hardness scale it is assigned number 10. Besides its hardness, this material is also exceptional for its good thermal conductivity and resistance to temperatures up to 700C (1292F) and for its resistance to all kinds of chemical effect at standard temperatures.

Table of grain size of the synthetic diamond powder

FEPA ISO 6106	Dimension µm	US Standard ASTM E 11	ČSN 224015
D 151	150/125	100/120	160/125
D 126	125/106	120/140	125/100
D 107	106/90	140/170	100/80
D 91	90/75	170/200	
D 76	75/63	200/230	80/63
D 64	63/53	230/270	63/50
D 54	53/45	270/325	50/40
D 46	45/38	325/400	

Contact for the receipt of orders

Address: VID GlassPartner s.r.o., U nádraží 1297, 511 01 Turnov, Czech Republic

E-mail: info@vid-glasspartner.com

Charge-free advisory service

Besides suggesting the proper wheel shape and its specific grinding qualities (free of charge), we offer an advisory service as well as a thorough counseling in areas of individual technologic steps and complex technologies according to the needs and demands of our customers.

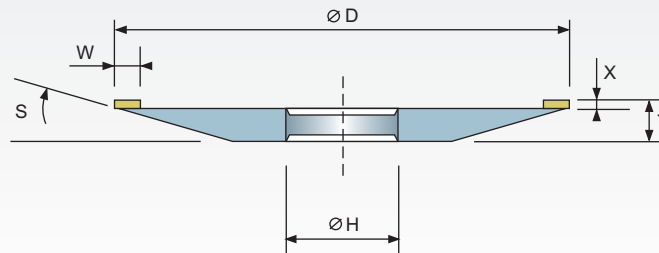
Designing of such technologic steps will be charged after mutual consent and consultation with the sales department.

The charge-free advisory service email account: info@vid-glasspartner.com



3. Diamond wheels for grinding of tungsten carbide knives

Resin bonded synthetic diamond grinding surface



4A2 (FEPA)

Catalogue No.	D mm	W mm	X mm	H mm	T mm	S	Grain	Bond	Concentration
	125	4	3	20/32	10	15°	D64 D15	DIA504M-W DIA600H-W	C50 C75
	150	4	3	20/32	12	15°			

For the preparatory (rough) wet grinding of the cutting face of the tungsten carbide knives, it is recommended to use the bond type **DIA504M-W** and the grain size D64.

For the final (smooth) wet grinding of the cutting face of the tungsten carbide knives, it is recommended to use the bond type **DIA600H-W** and a wheel with the grain size D15 (for example for the grinding depth of $t=0.01$ mm).

The use of the wheels with higher concentration C75, which are more expensive but have a longer lifetime, can be in some cases economically more efficient.

For the given operation it is possible to use also other types of wheels, utilized for grinding of the cutting face of the cutter (2.1) and the cutting face of the saw blade (1.1).

