

New **EXPERT** line of high-performance resin bonds

POLTAVA DIAMOND TOOLS offers new line of high-performance resin bonds called **EXPERT**

Diamond and CBN grinding wheels manufactured according to innovative technologies with usage of high-quality components, which can significantly increase the performance and durability of the wheels comparing to STANDARD line.

As our test results show, **EXPERT** bonds provide good grinding quality not only with coolant application, but also when working without it.

Application of **EXPERT** diamond resin bonded wheels

TYPE OF BOND	APPLICATION	COOLANT	PARAMETERS OF WORK
EXD21 Universal bond	For multistep grinding and sharpening of tungsten carbide tools. Most applicable for 12A2-45, 6A2, 12A2-20, 12R4 shapes and other dish and cup shaped wheels.	with coolant	Cutting speed: $V_c=20...25$ m/c Grinding depth: $t=$ up to 0,20 mm Line feed: $V_f= 0,50$ m/min
		without coolant	Cutting speed: $V_c=20...25$ m/c Grinding depth: $t=$ up to 0,10 mm Line feed: $V_f= 0,50$ m/min
	For multistep grinding and sharpening of tungsten carbide tools. Most applicable for 1A1, 14A1, 1FF1, 14FF1, 1V1 1EE1, etc. shapes.	with coolant	Cutting speed: $V_c=20...25$ m/c Grinding depth: $t=$ up to 0,07 mm Line feed: $V_f= 2,50$ m/min
		without coolant	Cutting speed: $V_c=20...25$ m/c Grinding depth: $t=$ up to 0,07 mm Line feed: $V_f= 1,50$ m/min
EXD11	For sharpening of tungsten carbide tools. Most applicable for shapes 12A2-45, 6A2, 12A2-20, 12R4 and other dish and cup shaped wheels. The bond is more wear-resistant and has better profile retention than EXD21.	with coolant	Cutting speed: $V_c=20...25$ m/c Grinding depth: $t=$ up to 0,20 mm Line feed: $V_f= 0,5$ m/min
		without coolant	Cutting speed: $V_c=20...25$ m/c Grinding depth: $t=$ up to 0,10 mm Line feed: $V_f= 0,50$ m/min
EXD12	For sharpening of tungsten carbide tools. Most applicable for shapes 1A1, 14A1, 1FF1, 14FF1, 1V1 1EE1, etc. The bond is more wear-resistant and has better profile retention than EXD21.	with coolant	Cutting speed: $V_c=20...25$ m/c Grinding depth: $t=$ up to 0,10 mm Line feed: $V_f= 1,00$ m/min
EXD31	For different shapes of wheels for multistep grinding and sharpening of tungsten carbide tools without coolant.	without coolant	Cutting speed: $V_c=20...25$ m/c Grinding depth: $t=$ up to 0,20 mm Line feed: $V_f= 0,25$ m/min
EXD41	For grinding and sharpening PCD tools	with coolant	Cutting speed: $V_c=20...25$ m/c Grinding depth: $t=$ up to 0,20 mm

NOTE: in case of increasing grinding depth, it is necessary to decrease line feed. And vice versa, in case of increasing line feed, grinding depth should be decreased.

Application of **EXPERT** CBN resin bonded wheels

TYPE OF BOND	APPLICATION	COOLANT	PARAMETERS OF WORK
EXB20 Universal bond	For multistep grinding and sharpening of high speed steel	with coolant	Cutting speed: $V_c=35$ m/c Grinding depth: $t=$ up to 0,20 mm Line feed: $V_f= 0,50\dots6,0$ m/min
		without coolant	Cutting speed: $V_c=32\dots35$ m/c Grinding depth: $t=$ up to 0,10 mm Line feed: $V_f= 0,50\dots6,0$ m/min
EXB10	For sharpening of high speed steel tools. The bond is more wear-resistant and has better profile retention than EXB20	with coolant	Cutting speed: $V_c=35$ m/c Grinding depth: $t=$ up to 0,20 mm Line feed: $V_f= 0,50\dots6,0$ m/min
		without coolant	Cutting speed: $V_c=32\dots35$ m/c Grinding depth: $t=$ up to 0,12 mm Line feed: $V_f= 0,50\dots6,0$ m/min

NOTE: in case of increasing grinding depth, it is necessary to decrease line feed. And vice versa, in case of increasing line feed, grinding depth should be decreased.