

CPC COOPERATIVE PATENT CLASSIFICATION

B24D **TOOLS FOR GRINDING, BUFFING, OR SHARPENING** (tools for grinding or polishing optical surfaces on lenses or surfaces of similar shape [B24B 13/01](#); grinding heads [B24B 41/00](#); manufacture of abrasive or friction articles or shaped materials containing macromolecular substances [C08J5/14](#); polishing compositions [C09G 1/00](#); abrasives [C09K 3/14](#))

NOTES

1. This subclass covers grinding tools for working on any material
2. Tools for grinding, buffing or sharpening, specially designed for a particular purpose, which purpose is provided for in a single other place, are classified in that place, e.g. [B23F 21/02](#)

3/00	Physical features of abrasive bodies, or sheets, e.g. abrasive surfaces of special nature; Abrasive bodies or sheets characterised by their constituents (composition of friction linings F16D 69/02)	Bonded abrasive wheels
3/001	. {the constituent being used as supporting member}	5/00 Bonded abrasive wheels, or wheels with inserted abrasive blocks, designed for acting only by their periphery; Bushings or mountings therefor
3/002	. . {Flexible supporting members, e.g. paper, woven, plastic materials}	5/02 . Wheels in one piece
3/004	. . . {with special coatings}	5/04 . . with reinforcing means
3/005	. {the constituent being used during pre- or after-treatment (B24D 3/348 takes precedence)}	5/06 . with inserted abrasive blocks, e.g. segmental (zonally graded B24D 5/14)
3/007	. {the constituent being used as bonding agent between different parts of an abrasive tool}	5/063 . . {with segments embedded in a matrix which is rubbed away during the grinding process}
3/008	. {Abrasive bodies without external bonding agent}	5/066 . . {with segments mounted axially one against the other}
3/02	. the constituent being used as bonding agent	5/08 . . with reinforcing means
3/04	. . and being essentially inorganic	5/10 . with cooling provisions, e.g. with radial slots
3/06	. . . metallic {or mixture of metals with ceramic materials, e.g. hard metals, "cermets", cements}	5/12 . Cut-off wheels
3/08	. . . . for close-grained structure, e.g. using metal with low melting point	5/123 . . {having different cutting segments}
3/10	. . . . for porous or cellular structure, e.g. for use with diamonds as abrasives	5/126 . . {having an internal cutting edge}
3/12	. . . water-setting, e.g. concrete	5/14 . Zonally-graded wheels; Composite wheels comprising different abrasives
3/14	. . . ceramic, i.e. vitrified bondings {(mixture with metals B24D 3/06)}	5/16 . Bushings; Mountings
3/16	. . . . for close-grained structure, i.e. of high density	5/165 . . {Balancing means}
3/18	. . . . for porous or cellular structure	7/00 Bonded abrasive wheels, or wheels with inserted abrasive blocks, designed for acting otherwise than only by their periphery, e.g. by the front face; Bushings or mountings therefor
3/20	. . and being essentially organic	7/005 . {for cutting spherical surfaces}
3/22	. . . Rubbers {synthetic or natural}	7/02 . Wheels in one piece
3/24	. . . . for close-grained structure {(B24D 3/002 takes precedence)}	7/04 . . with reinforcing means
3/26	. . . . for porous or cellular structure	7/06 . with inserted abrasive blocks, e.g. segmental (zonally-graded B24D 7/14)
3/28	. . . Resins {or natural or synthetic macromolecular compounds (B24D 3/22 takes precedence)}	7/063 . . {with segments embedded in a matrix which is rubbed away during the grinding process}
3/285	. . . . {Reaction products obtained from aldehydes or ketones}	7/066 . . {Grinding blocks; their mountings or supports}
3/30	. . . . for close-grained structure	7/08 . . with reinforcing means
3/32	. . . . for porous or cellular structure	7/10 . with cooling provisions
3/34	. characterised by additives enhancing special physical properties, e.g. wear resistance, electric conductivity, self-cleaning properties	7/12 . with apertures for inspecting the surface to be abraded
3/342	. . {incorporated in the bonding agent}	7/14 . Zonally-graded wheels; Composite wheels comprising different abrasives
3/344	. . . {the bonding agent being organic}	7/16 . Bushings; Mountings
3/346	. . {utilised during polishing, or grinding operation}	7/18 . Wheels of special form (if specially designed for a particular purpose provided for in a single other class, that class takes precedence; {saw cylinders having their cutting rim equipped with abrasive particles for working stone or glass B28D 1/041 })
3/348	. . {utilised as impregnating agent for porous abrasive bodies (after-treatments in general B24D 3/005)}	

9/00	Wheels or drums supporting in exchangeable arrangement a layer of flexible abrasive material, e.g. sandpaper (wheels or drums as machine elements F16)	15/023	. . {using in exchangeable arrangement a layer of flexible material}
9/003	. {Wheels having flaps of flexible abrasive material supported by a flexible material}	15/026	. . . {able to be stripped-off from a built-in delivery spool}
9/006	. {Tools consisting of a rolled strip of flexible material}	15/04	. resilient; with resiliently-mounted operative surface
9/02	. Expansible drums for carrying flexible material in tubular form, e.g. expanded by centrifugal force	15/045	. . {Glove-shaped abrasive devices}
9/04	. Rigid drums for carrying flexible material	15/06	. specially designed for sharpening cutting edges
9/06	. . able to be stripped-off from a built-in delivery spool	15/061	. . {for electric shaving blades}
9/08	. Circular back-plates for carrying flexible material	15/063	. . {for grinding shears, scissors}
9/085	. . {Devices for mounting sheets on a backing plate}	15/065	. . {for sharpening both knives and scissors}
9/10	. . with suction means for securing the material	15/066	. . {for sharpening skate blades, i.e. blades having two sharp edges defined by three surfaces intersecting in pairs at an angle of substantially 90°}
11/00	Constructional features of flexible abrasive materials; Special features in the manufacture of such materials	15/068	. . {for sharpening ski edges, i.e. sharp edges defined by two surfaces intersecting at an angle of substantially 90°}
11/001	. {Manufacture of flexible abrasive materials}	15/08	. . of knives; of razors
11/003	. . {without embedded abrasive particles (B24D 11/005 takes precedence)}	15/081	. . . {with sharpening elements in interengaging or in mutual contact}
11/005	. . {Making abrasive webs}	15/082	. . . . {the elements being rotatable}
11/006	. . . {without embedded abrasive particles}	15/084	. . . {the sharpening elements being fitted to knife sheaths, holders or handles}
11/008	. {Finishing manufactured abrasive sheets, e.g. cutting, deforming}	15/085	. . . {with reciprocating whetstones}
11/02	. Backings, e.g. foils, webs, mesh fabrics	15/087	. . . . {having a crank handle}
11/04	. Zonally-graded surfaces	15/088	. . . {with whetting leather}
11/06	. Connecting the ends of materials, e.g. for making abrasive belts	15/10	. . of safety-razor blades (devices with mechanically-operated parts B24B 3/50)
11/065	. . {Treatment of the ends of flexible abrasive materials before connecting them}	15/105	. . . {Holders therefor}
11/08	. Equipment for after-treatment of the coated backings, e.g. for flexing the coating	18/00	Manufacture of grinding tools (or other grinding devices), e.g. wheels, not otherwise provided for
13/00	Wheels having flexibly-acting working parts, e.g. buffing wheels; Mountings therefor	18/0009	. {using moulds or presses}
13/02	. acting by their periphery	18/0018	. {by electrolytic deposition}
13/04	. . comprising a plurality of flaps or strips arranged around the axis	18/0027	. {by impregnation}
13/045	. . . {comprising flaps not covering the entire periphery of the wheel}	18/0036	. {by winding up abrasive bands}
13/06	. . the flaps or strips being individually attached	18/0045	. {by stacking sheets of abrasive material}
13/08	. . comprising annular or circular sheets packed side by side	18/0054	. {by impressing abrasive powder in a matrix}
13/085	. . . {comprising flaps with a circular sheet on each side}	18/0063	. {by extrusion}
13/10	. . comprising assemblies of brushes	18/0072	. {using adhesives for bonding abrasive particles or grinding elements to a support, e.g. by gluing}
13/12	. . comprising assemblies of felted or spongy material, e.g. felt, steel wool, foamed latex	18/0081	. {of wire-reinforced grinding tools}
13/14	. acting by the front face	18/009	. {Tools not otherwise provided for}
13/142	. . {Wheels of special form}	99/00	Subject matter not provided for in other groups of this subclass {(B28D 1/124 takes precedence)}
13/145	. . {having a brush-like working surface}	99/005	. {Segments of abrasive wheels}
13/147	. . {comprising assemblies of felted or spongy material; comprising pads surrounded by a flexible material}		
13/16	. . comprising pleated flaps or strips		
13/18	. with cooling provisions		
13/20	. Mountings for the wheels		
15/00	Hand tools or other devices for non-rotary grinding, polishing, or stropping		
15/02	. rigid; with rigidly-supported operative surface		

2201/00 Bushings or mountings integral with the grinding wheel

2203/00 Tool surfaces formed with a pattern

2205/00 Grinding tools with incorporated marking device