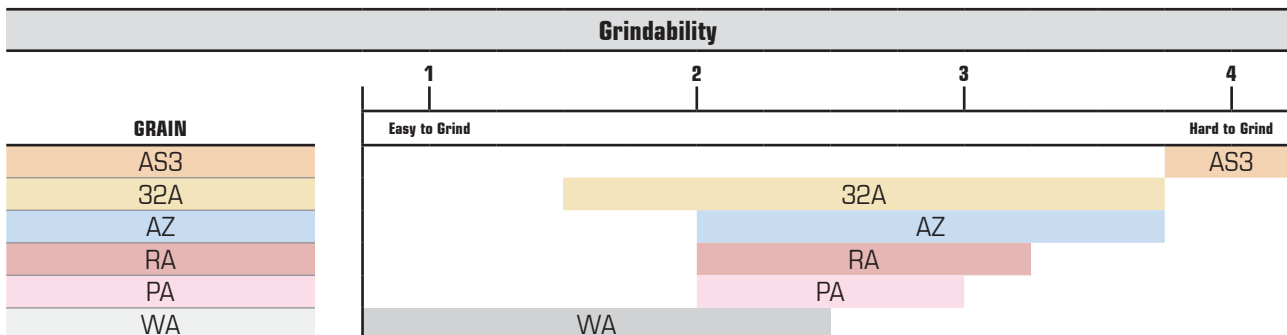


Surface Grinding Wheels Tool Steel Classifications



Steel Type	Classification of Grindability	Steel Type	Classification of Grindability	Steel Type	Classification of Grindability	Steel Type	Classification of Grindability	Steel Type	Classification of Grindability	Steel Type	Classification of Grindability
Air-Hardening Medium Alloy Cold Work Tool Steels		Carbon-Tungsten Tool Steels		Molybdenum Hot Work Tool Steels		Molybdenum High-Speed Tool Steels (cont.)		Oil-Hardened Cold Work Tool Steels		Tungsten High-Speed Tool Steels	
A2	1	F1	2	H41	2	M6	3	O1	1	T1	2
A3	1	F2	2	H42	2	M7	3	O2	1	T2	2
A4	1	F3	2	H43	2	M8	2	O6	1	T3	3
A5	1	Chromium Hot Work Tool Steels		Low-Alloy Special Purpose Tool Steels		M10	2	O7	1	T4	2
A6	1					M15	4	Mold Steels		T5	3
A7	1	H10	1			M20	2			T6	3
A8	1	H11	1	L1	1	M25	2	P1	1	T7	2
A9	1	H12	1	L2	1	M30	2	P2	1	T8	2
A10	1	H13	1	L3	1	M33	3	P3	1	T9	4
Air-Hardening Medium Alloy Cold Work Tool Steels		H14	1	L4	1	M34	3	P4	1	T15	4
D1	2	H16	1	L5	1	M35	3	P5	1	T20	4
D2	3	H17	1	L6	1	M40	3	P6	1	Water-Hardening Tool Steels	
D3	2	Tungsten Hot Work Tool Steels		Molybdenum High-Speed Tool Steels		M41	3	P20	1	W1	1
D4	2	H20	1			M42	3	P21	1	W2	1
D5	2	H21	1	M1	2	M43	3	Shock-Resisting Tool Steels		W3	1
D6	2	H22	1	M2	2	M44	3	S1	1	W4	1
D7	4	H23	1	M3	3	M45	3	S2	1	W5	1
		H24	1	M4	4	M50	3	S3	1	W7	1
		H25	1			M52	3	S4	1		
		H26	1					S5	1		
								S6	1		
								S7	1		

Surface Grinding Tips

There are many applications in surface grinding, from heavy stock removal to a very precise finish and size requirements. Matching the right wheel with the application is very important to achieve the needs of the grinder. There are many ways to meet these needs. If a fine finish is required a finer wheel may be used. Many times an operator may use one wheel to do the job of many changing the speed and feed of the wheel.

Grit Size / Grain Size Combinations

Grit Size: All abrasives are sized to a national standard and are assigned a numerical designation. The higher the number, the finer the grit size. When selecting grit size, the following should be considered:

- Use Coarse Grit:**
- For rapid stock removal
 - For large areas of contact
 - When finish is not important
 - For softer materials

- Use Fine Grit:**
- For form holding
 - For small areas of contact
 - For fine finishes
 - For hard, brittle materials

General Grain Size Selections

Grain	Finish (Rms)	Grain	Finish (Rms)	Grain	Finish (Rms)
46	Over 32	80	12 – 18	120	8 – 12
54	20 – 32	100	10 – 15	150	6 – 10
60	15 – 20				