

Abrasive Belt Systems

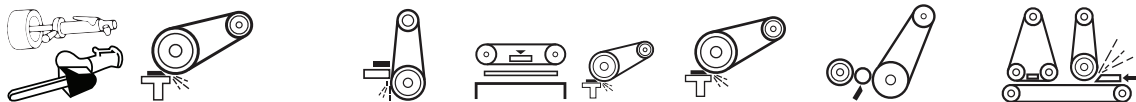
3M™ Belts

3M is the one-stop shop for all your coated abrasive metalworking belt needs! We offer a product tailored to nearly every application and performance level. To select the best product for your application, check out our easy-to-use Belt Selection Guide. Each tier of product offers best-in-class performance at various price points. Once you have selected the product, use the Availability Guide to select your grade. The following section includes our most popular belt items, but remember, other custom sizes are available.

How to Use the Coated Abrasive Belt Selection Guide

1. Find the machine type that you will run this belt on.
2. Move down to the metal type that is being worked on.
3. Select the product from the list of Recommended — Alternative — Finishing/Polishing belts.*
4. Check the Availability Guide for the grade.
5. Find the product on the following pages for available sizes.
6. If your size is not listed, contact your 3M distributor or 3M representative for ordering instructions.

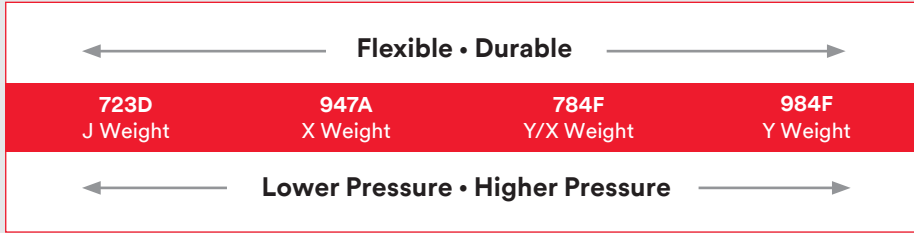
3M™ Coated Abrasive Belt Selection Guide



Recommended Starting Point	Portable File Belt	Coarse Grade High Pressure Grinding	Backstand/Off Hand Low-Med Pressure	Stroke Sander	Bench Top Belt Sander	Slack of Belt Sander	Centerless and Roll Grinding		Flat and Wide Belt Finishing	
							Dry	Wet	Dry	Wet
Carbon Steel and Cast Iron										
Recommended	784F	984F	784F	384F	784F	947A	784F	984F	784F	784F
Alternative	947A	994F	984F	784F	947A	723D	384F	784F	577F	577F
Finishing/Polishing	384F	—	947A	947A	384F	784F	347FC	363FC	384F	384F
	—	—	—	—	—	—	399F	399F	399F	399F
Stainless Steel and Cobalt Chrome										
Recommended	784F	984F	784F	784F	784F	947A	784F	984F	784F	784F
Alternative	947A	997F	984F	947A	947A	784F	384F	784F	577F	577F
Finishing/Polishing	384F	—	947A	384F	384F	—	347FC	363FC	461F	461F
	—	—	—	—	—	—	399F	399F	399F	399F
Aluminum and Soft Substrates										
Recommended	981F	984F	981F	981F	981F	947A	784F	784F	384F	384F
Alternative	784F	784F	784F	784F	784F	784F	384F	384F	361F	361F
Finishing/Polishing	384F	—	384F	384F	384F	384F	237AA	253FA	461F	461F
Titanium										
Recommended	967F	967F	967F	—	967F	947A	N/A	966F	N/A	966F
Alternative	784F	984F	784F	—	784F	784F	N/A	784F	N/A	461F
Finishing/Polishing	947A	—	461F	—	947A	—	N/A	—	N/A	—
	—	—	—	—	—	—	N/A	463FC	N/A	463FC

*Recommended is the potential best starting point based on the application. Alternative is another option based either on a different flexibility and durability need, or a possible lower initial belt cost. Value shown in belt process can be viewed as an increase in throughput, lower overall belt cost, and faster sanding or grinding time.

3M™ Coated Belt Backing Guide



Note: Applicable Substrates — stainless steel, cobalt chrome, carbon and cast iron steels

Abrasive Speed Recommendations for Off-Hand Applications

Alloy	Belt Speed (surface feet per minute)	Application Belt Grades
Cast Iron	7,000	24-120
Carbon Steel	6,500	24-120
Stainless Steel	6,500-7,000	36-120
Nickel Alloys	6,000	36-120
Titanium	2,500-3,000	36-180
Aluminum	7,500-8,500	24-120
	6,500-7,000	180<
Brass	7,000-8,000	36-180
Rubber	4,500	36-180
Glass	2,500-5,000	80-400
	6,000-8,000	
Stone	7,000	36-180

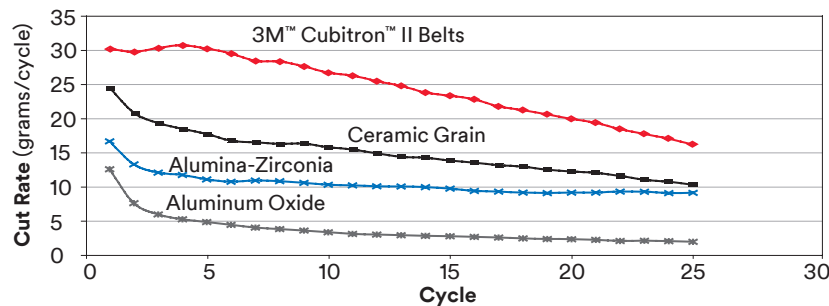
Key
 P = FEPA (P-grade)
 + = 3M Precision-Shaped Grain

3M™ Coated Belt Availability Guide

3M ID	Mineral	Backing	Grinding Aid	Use Dry/Wet	Grinding Wheel Size																					
					20	24	36	40	50	60	80	100	120	150	180	220	240	320	400	600						
399F	A/O Agglomerate	YF	No	Dry/Wet																P		P	P	P	P	
384F	A/O Ceramic Blend	XF	No	Dry/Wet				+		+	+	+			+	+	+	+	+				P	P		
461F	Silicon Carbide	YF/XF	No	Dry/Wet				P	P		P	P	P	P	P	P	P	P	P	P	P	P	P	P	P	
784F	3M Precision-Shaped Grain	YF/XF	Yes	Dry/Wet				+		+	+	+			+	+	+									
723D		J	No	Dry										+	+	+	+	+								
947A		X	Yes	Dry					+			+	+			+										
966F		ZF/YF	No	Wet	+	+	+	+	+	+	+	+														
967F		ZF/YF	Yes	Dry/Wet			+	+		+	+	+														
981F		YF	No	Dry/Wet				+	+			+														
984F		YF	Yes	Dry/Wet				+			+	+	+			+										
994F		ZF	No	Dry/Wet				+																		
997F		ZF	Yes	Dry/Wet				+																		

Tech tip

3M™ Cubitron™ II Abrasive Belts Cut Faster!

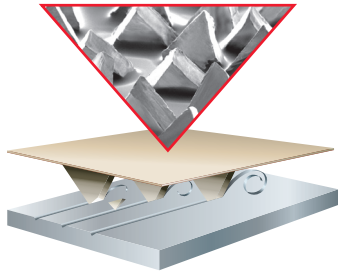


Tech tip

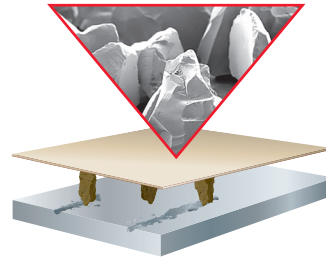
Keep Things Cool

When working on heat sensitive alloys like stainless steel, nickel alloys and cobalt alloys, choose a product with a grinding aid.

The Science of 3M Precision-Shaped Grain



3M precision-shaped grain uses 3M microreplication technology to form sharp peaks that easily “slice” through metal — cutting cooler, faster and lasting longer than conventional abrasive grain. That means more consistent performance with fewer disc changes — so you can get more work done over the life of your disc.



Conventional ceramic abrasive grain tends to “plow” through the metal, causing heat to build up in the workpiece and the abrasive — resulting in a slower cut and shorter disc life.

3M™ Cubitron™ II Cloth Belts

984F

- Made with revolutionary 3M precision-shaped abrasive grain technology
- YF wt backing
- Average up to 30% faster cutting on hard-to-grind metals than the next-best competitive belt
- Lasts up to 4 times as long as conventional ceramic aluminum oxide belts
- Cuts cooler — diverts heat from the work piece and belt to the swarf
- Helps eliminate burnishing and heat stress
- Reduces changeouts and downtime in robotic and pressure assisted applications



UPC	W x L	Grade	Qty/Case
051141-55032-9	1/4" x 24"	60+	200
051141-27511-6	1/2" x 18"	36+	200
051141-55041-1	1/2" x 18"	60+	200
051141-55048-0	1/2" x 18"	80+	200
051141-27512-3	1/2" x 24"	36+	200
051141-55031-2	1/2" x 24"	60+	200
051141-55054-1	1/2" x 24"	80+	200
051141-55064-0	3/4" x 18"	36+	200
051141-55030-5	3/4" x 18"	60+	200
051141-55047-3	3/4" x 18"	80+	200
051141-55065-7	3/4" x 20-1/2"	36+	200
051141-55055-8	3/4" x 20-1/2"	80+	200
051141-55046-6	1" x 11"	60+	500
051141-55050-3	1" x 11"	80+	500
051141-55060-2†	1" x 42"	80+	200
051141-27514-7	1" x 132"	36+	100
051141-55039-8	1" x 132"	60+	200
051141-55052-7	1" x 132"	80+	200

†Made-to-Order

984F (cont)

UPC	W x L	Grade	Qty/Case
051141-55066-4†	1-1/2" x 132"	36+	50
051141-55068-8	2" x 60"	36+	50
051141-55036-7†	2" x 60"	60+	50
051141-27516-1	2" x 72"	36+	50
051141-55034-3	2" x 72"	60+	50
051141-55057-2	2" x 72"	80+	50
051141-55067-1	2" x 118"	36+	50
051141-27460-7	2" x 132"	36+	50
051141-55044-2	2" x 132"	60+	50
051141-55056-5	2" x 132"	80+	50
051141-55069-5	2-1/2" x 60"	36+	50
051141-27853-7†	2-1/2" x 60"	60+	50
051141-55058-9†	2-1/2" x 60"	80+	50
051141-27461-4	3" x 132"	36+	25
051141-55043-5	3" x 132"	60+	25
051141-55051-0	3" x 132"	80+	25
051141-55042-8	3-1/2" x 15-1/2"	60+	50
051141-55049-7	3-1/2" x 15-1/2"	80+	50
051141-27462-1	4" x 132"	36+	25
051141-55070-1	5" x 132"	36+	25
051141-55071-8	6" x 48"	36+	20
051141-55037-4	6" x 48"	60+	20
051141-55059-6†	6" x 48"	80+	20
051141-55035-0	6" x 60"	60+	20
051141-27515-4	6" x 132"	36+	10
051141-55072-5	8" x 107"	36+	10
051141-27513-0	8" x 132"	36+	10
051141-55063-3†	37" x 60"	80+	2
051141-55062-6†	37" x 75"	80+	2

†Made-to-Order