

# Abrasive Belt Systems



## 3M™ Belts

3M is the one-stop shop for all of your 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, we can provide any size belt that you might need!

## Abrasive Speed Recommendations for Off-Hand Applications

Alloy	Belt Speed (surface feet per minute)	Applicable 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
Aluminum	6,500–7,000	Fine Grades
Brass	7,000–8,000	36–180
Rubber	4,500	36–180
Glass	2,500–5,000	80–400
Glass	6,000–8,000	80–400
Stone	7,000	36–180

## 3M™ Coated Abrasive Belt Availability Guide

**Key** • = Available grade    **P** = FEPA (P-grade)    **+** = 3M precision shaped grain

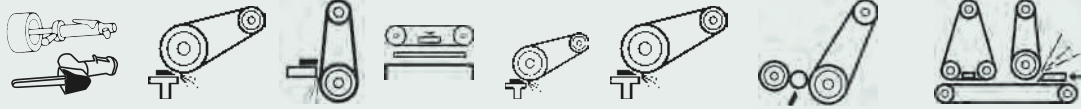
3M ID	Mineral	Backing	Grinding Aid	Use Dry/Wet	600	500	400	320	240	220	180	150	120	100	80	60	50	40	36	24		
241E	Aluminum Oxide	XE		Dry				<b>P</b>		<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	•							
302D		J		Dry	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	•	•						
332D		Flex X		Dry			<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	•	•					
341D		X		Dry			<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	•	•	•	•	•	•	
361F		XF		Dry/Wet			<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	•	•	•	•	•	•	
461F	Silicon Carbide	XF		Dry/Wet	<b>P</b>		<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>			<b>P</b>	<b>P</b>		
577F	Alumina Zirconia	YF	Yes	Dry/Wet							•	•	•	•	•	•	•	•	•	•		
747D	Ceramic A/O* Blend	X	Yes	Dry								<b>P</b>	<b>P</b>	<b>P</b>	•	•	•		•			
777F		YF	Yes	Dry/Wet							<b>P</b>	<b>P</b>	<b>P</b>	<b>P</b>	•	•	•	•	•			
947A	Precision Shaped Ceramic and A/O* Blend	X	Yes	Dry/Wet									+		+	+		+				
963G	Ceramic	YN		Dry/Wet									•	•	•	•	•	•	•	•		
966F		YF		Dry/Wet											•	•	•	•	•	•		
977F		YF	Yes	Dry/Wet									•	•	•	•	•	•	•	•		
984F	Precision Shaped Ceramic	YF	Yes	Dry/Wet											+	+				+		
994F		ZF		Dry/Wet																	+	
997F		ZF	Yes	Dry/Wet																		+

\*A/O – Aluminum Oxide

# 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 **Good** — **Better** — **Best** and **Finishing** 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



Performance	Portable/ File Tool	Coarse Grade Power Grinding/ High Pressure	Slack of Belt Sander	Stroke Sander	Bench Top Belt Machine	Backstand/ Off Hand	Centerless & Roll Grinding		Flat Finishing	
							Dry	Wet	Dry	Wet
<b>Carbon Steel</b>										
<b>Good</b>	241E	577F	341D	—	341D	341D	—	—	341D	361F
<b>Better</b>	577F	963G	577F	—	577F	577F	577F	577F	577F	577F
<b>Best</b>	984F/947A	984F/994F/997F	947A	—	984F/947A	984F/947A	966F	966F	966F	966F
<b>Finishing</b>	—	—	341D/ Trizact*	—	341D/ Trizact*	3XXD**/ Trizact*	777F/ Trizact*	Trizact*	461F	461F
<b>Stainless Steel</b>										
<b>Good</b>	—	—	577F	341D	577F	577F	—	—	341D	361F
<b>Better</b>	577F	577F	777F	—	777F	777F	577F	577F	577F	577F
<b>Best</b>	984F/947A	984F/994F/997F	947A	747D/ 947A	984F/947A	984F/947A	977F	966F	984F	984F
<b>Finishing</b>	—	—	Trizact*	—	Trizact*	3XXD**/ Trizact*	777F/ Trizact*	Trizact*	461F/ Trizact*	461F/ Trizact*
<b>Aluminum, Brass, Bronze</b>										
<b>Good</b>	241E	577F	—	—	—	—	—	—	341D	361F
<b>Better</b>	577F	963G	577F	—	577F	577F	577F	577F	577F	577F
<b>Best</b>	984F/947A	984F/994F/997F	947A	—	984F/947A	984F/947A	—	—	—	—
<b>Finishing</b>	—	—	341D/ Trizact*	—	341D/ Trizact*	3XXD**/ Trizact*	341D/ Trizact*	461F	461F	461F
<b>Cobalt and Nickel Alloys</b>										
<b>Good</b>	—	—	577F	—	577F	577F	—	—	577F	577F
<b>Better</b>	577F	577F	777F	—	777F	777F	577F	577F	777F	777F
<b>Best</b>	984F/947A	984F/994F/997F	947A	—	984F/947A	984F/947A	977F	966F	984F	984F
<b>Finishing</b>	—	—	Trizact*	—	Trizact*	3XXD**/ Trizact*	777F/ Trizact*	Trizact*	461F	461F
<b>Titanium</b>										
<b>Good</b>	—	—	461F	—	461F	461F	—	—	—	461F
<b>Better</b>	577F	577F	577F	—	577F	577F	—	577F	—	577F
<b>Best</b>	984F	984F/994F/997F	—	—	984F	984F	—	966F	—	966F
<b>Finishing</b>	—	—	461F/Trizact*	—	461F/ Trizact*	3XXD**/ Trizact*	—	Trizact*	—	461F

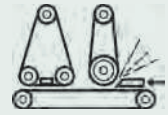
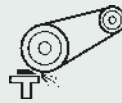
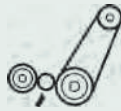
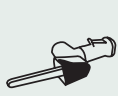
\*For specific Trizact product recommendations, see page 47.

\*\*3XXD: Choose from 302D, 332D and 341D depending upon backing flexibility needed for application.

### Note

For the ultimate in performance for coarse grade grinding in any application, be sure to try the latest innovation: 3M™ Cubitron™ II Metalworking Belts.

### 3M™ Trizact™ Belt Selection Guide



Portable Tools	Centerless/Roll Grinder/ Tool Post (Dry)		Stroke/ Platen Sander	Backstand, Robotic		Flat Finisher	
	Dry	Wet		Med. Pressure	Lt. Pressure	Dry	Wet
<b>Mild Steel, Stainless, Nickel, Cobalt Alloys</b>							
307EA	237AA	347FC	237AA	237AA	217EA	237AA	253FA
237AA	327DC	363FC/463FC	347FC	307EA	237AA	347FC	363FC
347FC	347FC	463FC/953FA	—	337DC	327DC	—	463FC
<b>Aluminum, Brass, Copper</b>							
217EA	237AA	347FC	—	237AA	217EA	237AA	253FA
237AA	327DC	363FC/463FC	237AA	307EA	237AA	347FC	363FC/463FC
347FC	347FC	—	347FC	337DC	327DC	—	—
<b>Titanium</b>							
237AA, 347FC, 407EA	407EA, 347FC	363FC/463FC	407EA	237AA, 337DC, 407EA	217EA, 327DC, 407EA	237AA	363FC/463FC
<b>Chrome</b>							
347FC	327DC	347FC	—	—	—	—	—
—	—	363FC/463FC	—	—	—	—	—
—	—	953FA	—	—	—	—	—

### 3M™ Trizact™ Belt Availability Guide

3M ID	Mineral	Backing	Description	Use Dry/Wet	A Grade															
					300	160	110	100	90	80	65	60	45	35	30	20	16	10	6	5
217EA	Aluminum Oxide	Flex. J wt.	Low Pressure	Dry				•	•	•		•	•	•		•	•			
237AA		Semi Flex. X wt.	Low-Med Pressure	Dry		•		•	•	•		•	•	•		•	•			
253FA		Stiff X wt.	Low-Med Pressure	Wet				•	•	•		•	•	•		•	•			
305EA		Flex. J wt.	Fine Finishing	Dry															•	•
307EA		Flex. J wt.	Low-Med Pressure	Dry				•	•	•		•	•	•		•	•			
327DC		Semi Flex. X wt.	Low Pressure	Dry	•	•		•		•		•	•	•		•				
337DC		Semi Flex. X wt.	Med Pressure	Dry	•	•		•		•		•	•	•		•				
347FC		Semi Flex. X wt.	High Pressure	Wet/Dry	•	•		•		•		•	•	•		•				
363FC		Stiff YF wt.	Med-High Pressure	Wet	•	•		•		•		•	•	•		•				
407EA		Silicon Carbide	Flex. J wt.	Low-Med Pressure	Dry			•		•		•				•				
463FC	Stiff YF wt.		Med-High Pressure	Wet								•			•		•	•		
953FA	Ceramic	Stiff YF wt.	Med-High Pressure	Wet	•	•		•		•	•	•	•		•		•	•		