



Cubitron™ 3

Performance Abrasives

Produce more. With less.

3M™ Cubitron™ 3 Fibre Discs and Roloc™

Breakthroughs in technology that redefine the limits of cut rate and total stock removal, with a focus on prioritizing productivity, safety, sustainability, and optimizing automation.



Now 36+, 60+ and 80+ grades available!

3M™ Cubitron™ 3 Fibre Discs 1182C and 1187C
3M™ Cubitron™ 3 Roloc™ 1184F, 1182C and 1187C





Produce more. With less.

3M™ Cubitron™ 3 Fibre Discs and Roloc™

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A new era of abrasive performance is here.

Introducing 3M re-engineered Precision-Shaped Grain, boosting the speed and life of 3M™ Cubitron™ Performance Abrasives to new heights. This advancement prioritizes operator safety, maximizes sustainability, and amplifies time and labor efficiency.

3M™ Cubitron™ 3 Fibre Disc 1182C, 36+

Up to

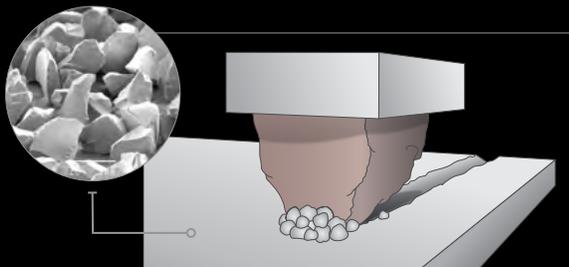
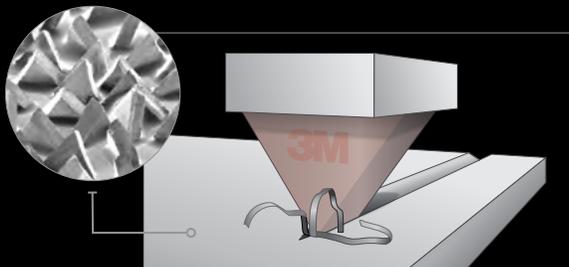
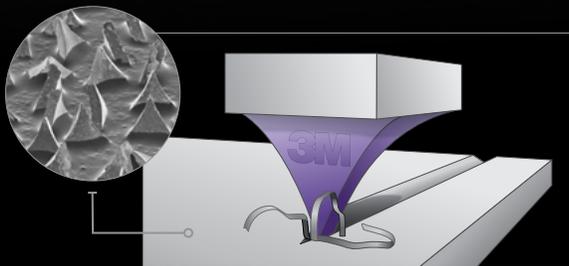
60%

- **Faster sustained cut rate**
- **More total material removed**

vs. 3M™ Cubitron™ II Fibre Disc 982C, 36+



Enhanced mineral orientation



Re-shaping the way work gets done.

3M | **Cubitron™ 3**
Performance Abrasives

Our latest 3M Precision-Shaped Grain

Re-engineered precision-shaped ceramic grain using a proprietary breakthrough in grain shape with curved sides. This helps increase productivity and lower overall grinding costs.

3M Precision-Shaped Grain

3M pioneered the first precision-shaped grain using 3M microreplication technology to form consistent sharp peaks that easily “slice” through metal—cutting cooler, faster, and lasting longer than conventional abrasive grain.

Conventional ceramic abrasive

Conventional ceramic abrasive grain tends to “plow” through metal, causing heat to build up in the workpiece and abrasive, resulting in a slower cut and shorter abrasive life compared to our latest precision-shaped grain.

Ideal for heavy grinding applications.

By using long-lasting, fast-cutting 3M™ Cubitron™ 3 Performance Abrasives, you can minimize abrasive changeover to save money over time. Stiff fiber backing and a strong resin bond provide durability and tear-resistance for heavy grinding applications from beveling, weld grinding, surface grinding to deburring, and flame cut smoothing. In each application the product grinds more freely and at lower temperatures, helping to reduce job times, operator fatigue and minimize rework.



Industries: ▶ Metal fabrication ▶ Machinery manufacturing ▶ Shipyards

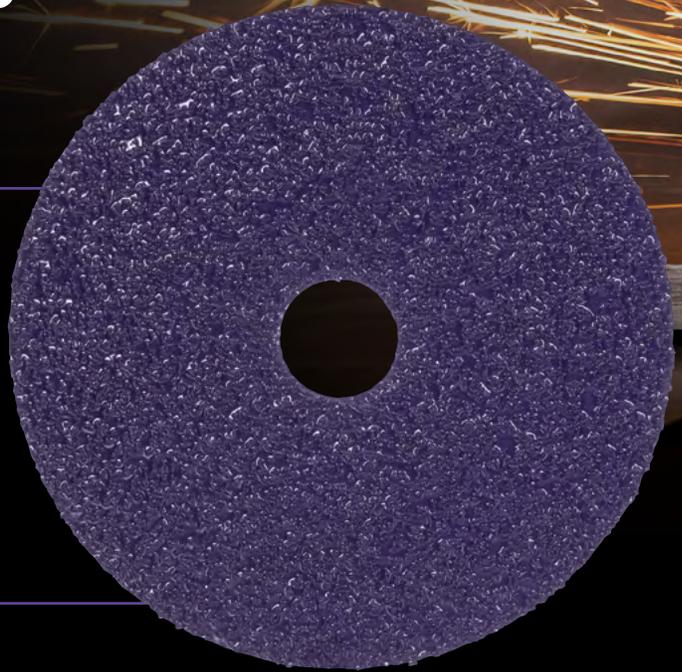


Proven to change the game for your process.

3M™ Cubitron™ 3 Fibre Disc 1182C

Carbon steel grinding

Grade 36+



More total material removed

Longer lasting abrasives with fewer changeouts needed and less downtime



Less operator fatigue

Prioritize workplace wellbeing and motivation with less pressure required on the tool



Cool cutting

Helps to reduce metal discoloration and stress cracks — ultimately minimizing re-work



Faster cut rate

Incredibly fast cut rate helps to increase throughput, maximize productivity and boost your bottom line



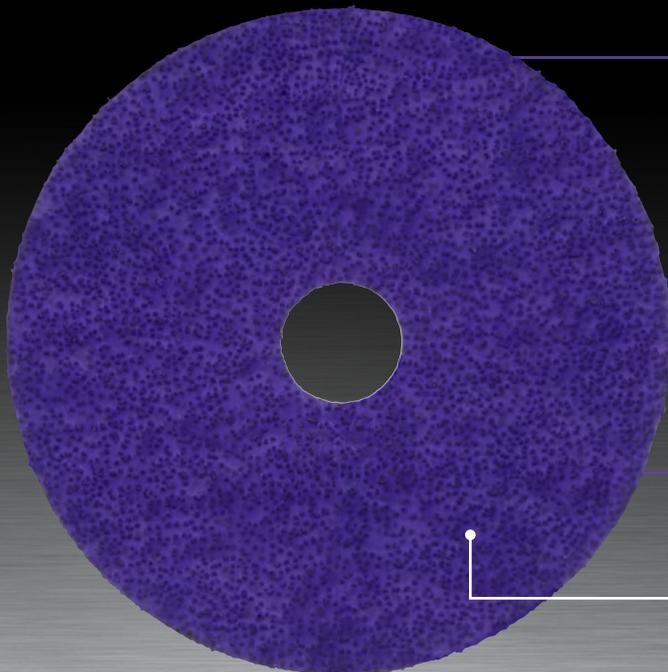
Less vibration exposure

Helps improve workplace safety without compromising productivity



Sustainability at the core

Longer-lasting abrasives and recycled shipper packaging helps reduce carbon footprints and waste



3M™ Cubitron™ 3 Fibre Disc 1187C

Stainless steel grinding

Grade 36+

Coated with a grinding aid

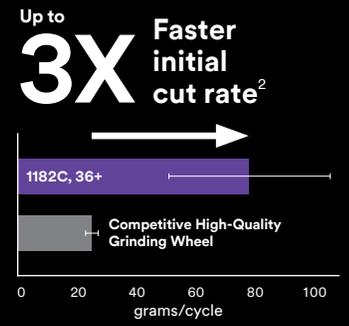
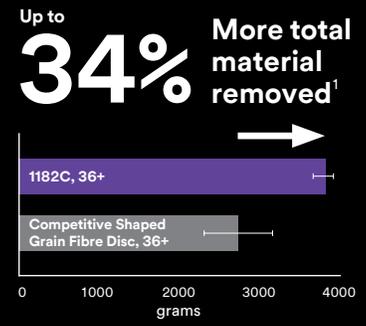
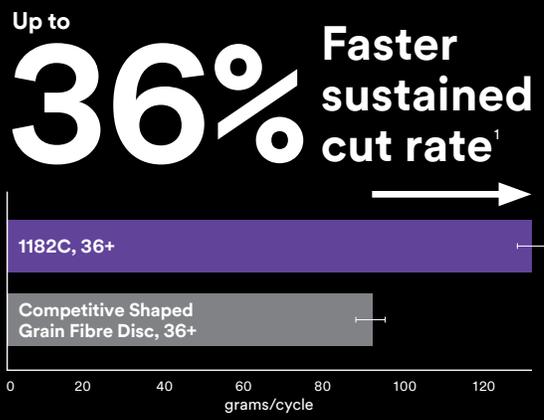
Reduces the risk of discoloration from thermal damage in heat sensitive metals



Grade 36+

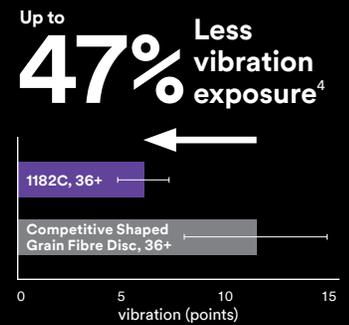
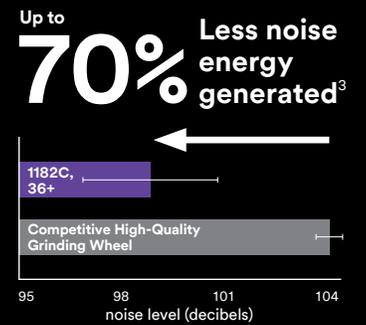
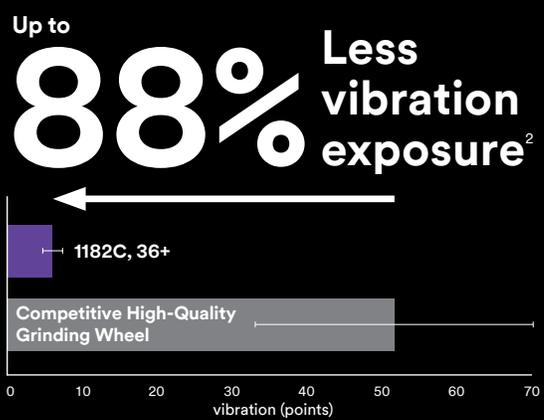
We tested 3M™ Cubitron™ 3 Fibre Disc 1182C, 36+ and here are the results:

Productivity Delivered



Helps improve workplace safety without compromising productivity.

Safety Built In



Error bars represent the results with a 95% confidence level.

¹ Compared to Competitive Shaped Grain Fibre Disc. Results are based on an automated, 30-minute, high pressure test on T018 steel using 7 inch, 36+ grit fibre discs and 3M™ Disc Pad Face Plate Ribbed 80514 on a servo motor.

² Performance testing in a typical weld preparation process; 3M™ Cubitron™ 3 Fibre disc average compared to the average result of 10 globally available high-quality competitive shape type-27 Grinding wheels including ceramic grain products, according to independent testing by Fraunhofer Institute. January 2024. **

³ Noise energy operator exposure testing in a typical weld preparation process; Cubitron™ 3 Fibre disc average compared to the average result of 10 globally available high-quality competitive shape type-27 Grinding wheels including ceramic grain products, according to independent testing by Fraunhofer Institute. January 2024.

⁴ Performance testing in a typical weld preparation process; 3M™ Cubitron™ 3 Fibre disc average compared to the average result of 5 globally available high-quality competitive Fibre discs including ceramic shaped grain products, according to independent testing by Fraunhofer Institute. January 2024.

⁵ Average result from 10 high-quality globally represented competitive Grinding wheels including ceramic grain products. Error bars shows a range of likely values for the mean with a confidence level of 95%.

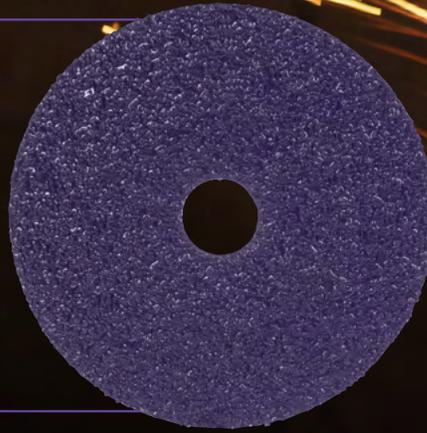
Independent hazards testing performed by:



3M™ Cubitron™ 3 Fibre Disc 1182C

Carbon steel grinding

Grades 60+ & 80+



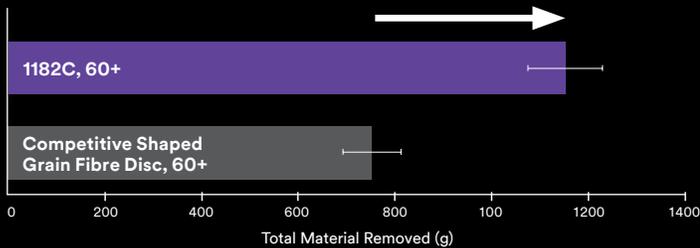
NEW!

We tested 3M™ Cubitron™ 3
Fibre Disc 1182C 60+ and 80+,
and here are the results:

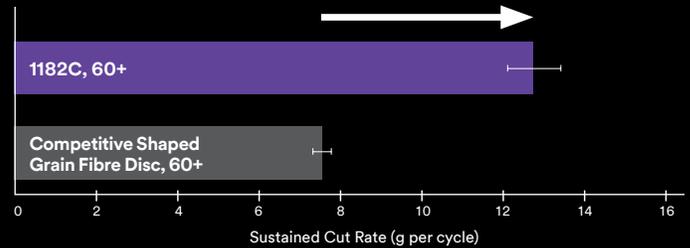
**Productivity
Delivered**

Grade 60+

Up to
53% More total
material
removed¹

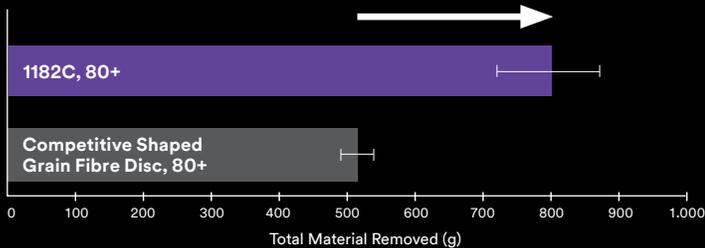


Up to
69% Faster
sustained
cut rate²

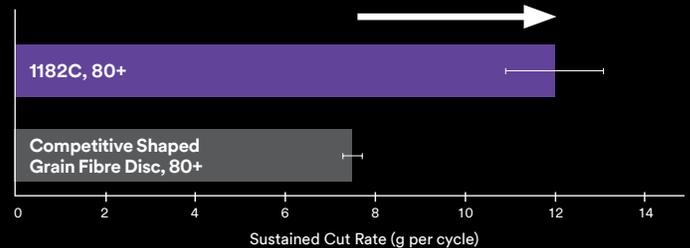


Grade 80+

Up to
55% More total
material
removed¹



Up to
60% Faster
sustained
cut rate²



Total Material Removed:

60+ Carbon Steel: The 'total material removed' claim is determined by averaging the amount of metal ground over 100 cycles, approximately 42 minutes of grinding

80+ Carbon Steel: The 'total material removed' claim is determined by averaging the amount of metal ground over 70 cycles, approximately 30 minutes of grinding

Units for carbon steel will be Grams
Each cycle for the carbon steel test method = 25.3 seconds of grinding per cycle

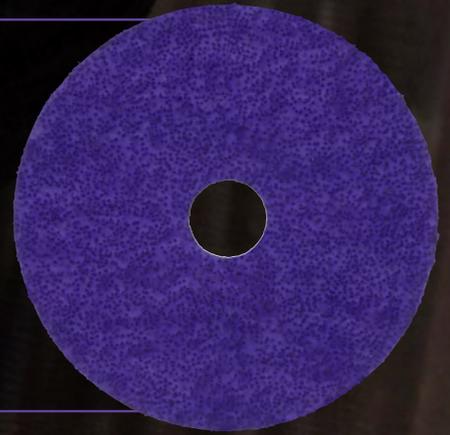
Sustained Cut Rate:

60+ & 80+ Carbon Steel: The 'sustained cut rate' claim is determined from averaging the cut/cycle from cycles 11-50 (40 cycles total, which is approximately 17 minutes of grinding)

3M™ Cubitron™ 3 Fibre Disc 1187C

Stainless steel grinding

Grades **60+ & 80+**



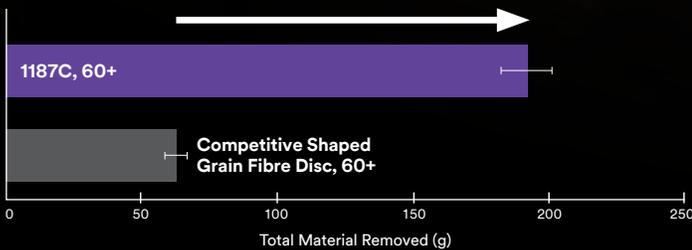
NEW!

We tested 3M™ Cubitron™ 3
Fibre Disc 1187C 60+ and 80+,
and here are the results:

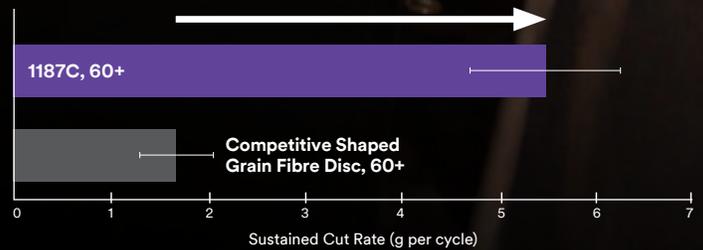
**Productivity
Delivered**

Grade 60+

Up to
207% More total
material
removed¹

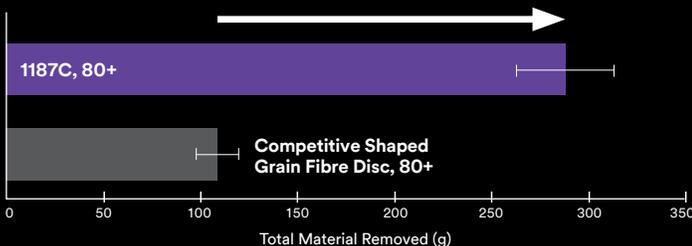


Up to
228% Faster
sustained
cut rate²

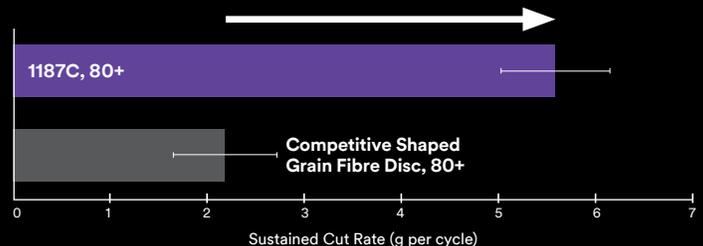


Grade 80+

Up to
166% More total
material
removed¹



Up to
155% Faster
sustained
cut rate²



Total Material Removed:

60+ Stainless Steel: The 'total material removed' claim is determined by averaging the amount of metal ground over 40 cycles, approximately 8.5 minutes of grinding

80+ Stainless Steel: The 'total material removed' claim is determined by averaging the amount of metal ground over 72 cycles, approximately 15 minutes of grinding

Units for stainless steel will be Grams

Each cycle for the stainless steel test method = 12.7 seconds of grinding per cycle

Sustained Cut Rate:

60+ & 80+ Stainless Steel: The 'sustained cut rate' claim is determined from averaging the cut/cycle from cycles 5-24 (20 cycles total, which is approximately 4 minutes of grinding)

Units for stainless steel will be (Grams/cycle)

Tools that take it to the next level.

The new 3M™ Pneumatic Angle Grinders and 3M™ Pneumatic Sanders are powerful tools that feature superior performance and world-class ergonomic designs. They're built with robust components for durability and reliability in the harshest industrial conditions.

- ▶ 1.5HP (1100 W power)
- ▶ Wheel autobalancer
- ▶ Spindle lock
- ▶ Vibration-reducing side handle with added padding—interchangeable for right or left hand usage
- ▶ Available accessories provide maximum functionality and flexibility
- ▶ Rear exhaust directs exhaust and swarf away from the workpiece
- ▶ Adjustable guard (3M™ Pneumatic Angle Grinder)



Get the full system advantage.

3M™ Pneumatic Angle Grinder or 3M™ Pneumatic Sander



3M™ Disc Back-up Pads ideal use



Grade 36+



Grades 60+ 80+



TECH TIP:

Combine with 3M™ Pneumatic Angle Grinder or Sander and 3M™ Disc Back-up Pad and set yourself up to a new level of productivity. Each component of this system has been engineered to optimize abrasive life, cut rate and consistency—helping to improve productivity and lower overall costs.

Get more value from your automation investment.

Automation Ready

There are many reasons to invest in automating your abrasive processes: improvement gains in productivity; increase in consistency, quality and safety; an answer to your labor shortage. And to ensure maximized ROI from your investment, the best path comes from automating correctly from the start. That's where 3M products and engineering expertise come in.

The limitations of manual operation.

Manual operators are constrained by the amount of force they can apply and the angles they can hold a tool. Automation removes many of these constraints, working consistently and repeatedly at targeted angles and an optimized level of force and speed. A robot however, is still constrained by the abrasives it's running.

The vital importance of the right abrasives and process parameters in automation.

To realize the full ROI on your automation investment, you want to optimize your abrasive products and parameters for these four key elements:

- ▶ Uptime: Determined by abrasive life and full utilization of abrasive, change-over frequency is a key factor here.
- ▶ Throughput: Determined by abrasive performance, faster processing leads to more part throughput.
- ▶ Consistency: Determined by performance through the life of the abrasive product, resulting in increased finished good quality and less change over.
- ▶ Efficiency: 3M Robotic Application Engineers can help design a process that utilizes the full width of the abrasive. Reducing abrasive waste and cost.

At 3M, we have a deep understanding of the factors that affect an automated abrasive process. Our 100+ years of abrasive experience and 35+ years of abrasive automation experience is accessible through our Technical Experts, our 17 Global Proof of Concept automation labs, and deployed into how we engineer our products.



Products engineered with automation in mind.

3M™ Cubitron™ 3 Performance Abrasives elevate product life, cut rate, and wear consistency. This enhances processes that are already automated or increases the appeal of automating current manual ones.

Start your journey with 3M.

We know abrasive automation. We start with your part requirements in mind and offer consultation on the entire cell system; including recommendations on hardware and software, connections to partners in our 3M System Integrator Network, and running proof of concept projects in our labs; to meet the needs of your process.

3M™ Cubitron™ 3 Roloc™ Fibre Discs

The benefits of the Roloc™ attachment

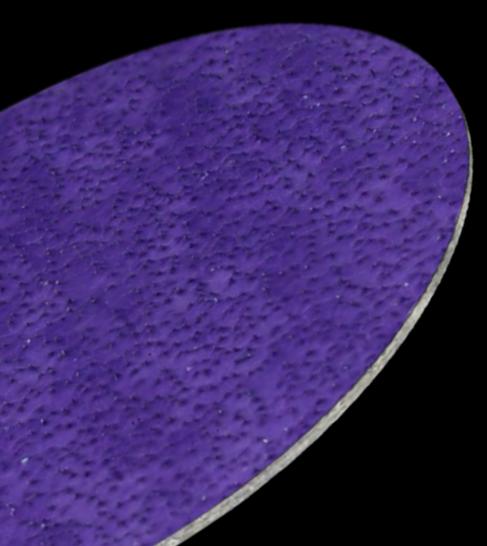
3M™ Roloc™ Abrasive Discs are smaller discs that quickly attach onto a Roloc™ disc pad so that you can conveniently and rapidly change discs as needed. Our system provides a secure attachment

even for heavy-duty applications. Disc buttons are also color-coded when needed to identify its grade, making it easy to select the grade required for different applications.

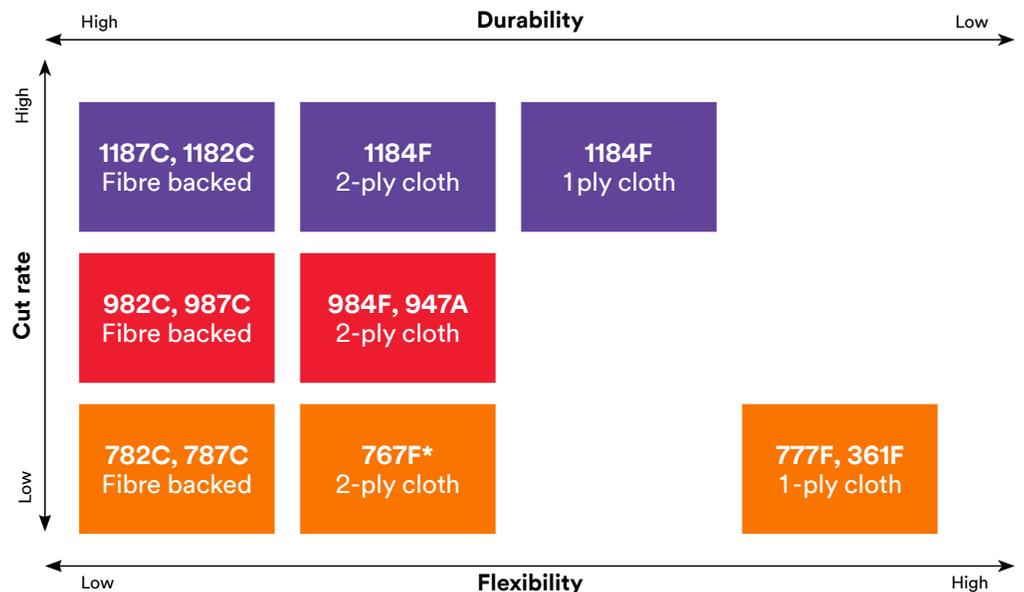
- ▶ Remote applications
- ▶ Retain extra control
- ▶ Localized, refining, finishing
- ▶ Corner or curved surfaces
- ▶ Intricate, difficult to reach areas
- ▶ Remove weld splatter on small areas

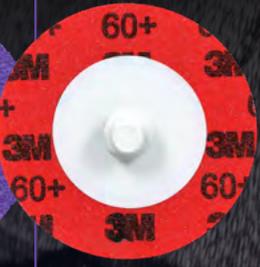


**Productivity
Delivered**



Grinding and stock removal





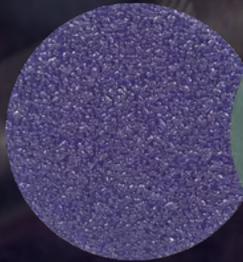
3M™ Cubitron™ 3 Roloc™ Durable Edge Disc 1184F

Stainless steel and other heat-sensitive alloys.

Designed for metalworking applications where flexibility is required and wear resistance in edge work is needed as well as weld grinding, beveling, and deburring.

Grades 36+, 60+ & 80+

NEW!



3M™ Cubitron™ 3 Roloc™ Fibre Disc 1182C

Carbon steel grinding

Outstanding performance and productivity for medium to high pressure grinding applications on carbon steel when a smaller sized disc is needed.

Grades 36+, 60+ & 80+

NEW!



3M™ Cubitron™ 3 Roloc™ Fibre Disc 1187C

Stainless steel, cobalt chrome, and nickel alloy applications.

Long-lasting disc offering a fast cut rate with high stock removal across a wide range of application pressures

Grades 36+, 60+ & 80+

NEW!

3M™ Roloc™ Disc button color/grade guide

CB3 Fibre Disc	Color	Grade
1184F Durable edge	○ White	All*
1184F	● Brown	36+
1182C	● Orange	60+
1187C	● Yellow	80+

Optimum tool speed to maximize 3M™ Roloc™ Disc cut rates and life

Disc size	Substrate			
	Carbon Steel	Stainless Steel	Titanium	Aluminium
1-1/2 in	30.000rpms	20.000rpms	9.000rpms	30.000rpms
2in	20.000rpms	15.000rpms	7.000rpms	20.000rpms
3in	15.000rpms	10.000rpms	4.500rpms	15.000rpms
4in	9.000rpms	8.000rpms	3.000rpms	9.000rpms

3M™ Roloc™ Attachment System

CB3 Fibre Disc	Size (in.)	TR	TSM	TS
1184F	1-1/2	●	●	
	2	●	●	
	3	●	●	
	4	●		●
1182C	2	●	●	
	3	●	●	
	4	●		●
1187C	1-1/2	●	●	
	2	●		
	3	●	●	
	4	●		●

*Ask for other dimensions availability.



TR
plastic button

TSM
metal button

TS
plastic button

Product Ordering Information



3M™ Cubitron™ 3 Fibre Disc 1182C

UPC	Grade	Diameter (in)	Max RPM	Unit/Case
Standard Round Hole				
068060-66433-4	36+	4 × 5/8	15,000	25/100
068060-66434-1	36+	4 × 7/8	15,000	25/100
068060-66435-8	36+	4-1/2 × 7/8	13,300	25/100
068060-66436-5	36+	5 × 7/8	12,000	25/100
068060-66437-2	36+	6 × 7/8	10,000	25/100
068060-66438-9	36+	7 × 7/8	8,600	25/100
068060-66439-6	36+	9-1/8 × 7/8	6,600	25/100
NEW 068060-67062-5	60+	4-1/2 × 7/8	13,300	25/100
NEW 068060-67063-2	60+	5 × 7/8	12,000	25/100
NEW 068060-67064-9	60+	6 × 7/8	10,000	25/100
NEW 068060-67065-6	60+	7 × 7/8	8,600	25/100
NEW 068060-67066-3	60+	9-1/8 × 7/8	6,600	25/100
NEW 06806067077-9	80+	4-1/2 × 7/8	13,300	25/100
NEW 068060-67078-6	80+	5 × 7/8	12,000	25/100
NEW 068060-67079-3	80+	7 × 7/8	12,000	25/100
NEW 068060-67080-9	80+	9-1/8 × 7/8	6,600	25/100
TN Quick Change				
068060-66440-2	36+	4-1/2	13,300	25/100
068060-66441-9	36+	5	12,000	25/100
068060-66442-6	36+	7	8,600	25/100
NEW 068060-67067-0	60+	4-1/2	13,300	25/100
NEW 068060-67068-7	60+	5	12,000	25/100
NEW 068060-67069-4	60+	7	8,600	25/100
NEW 06806-067081-6	80+	4-1/2	13,300	25/100
NEW 06806-067082-3	80+	5	12,000	25/100
NEW 06806-067083-0	80+	7	8,600	25/100
GL Quick Change				
068060-66443-3	36+	4-1/2	13,300	25/100
068060-66444-0	36+	5	12,000	25/100
068060-66445-7	36+	7	8,600	25/100
NEW 068060-67070-0	60+	5	12,000	25/100
NEW 068060-67071-7	60+	7	8,600	25/100
NEW 068060-67084-7	80+	5	12,000	25/100
NEW 068060-67085-4	80+	7	8,600	25/100

3M™ Pneumatic Angle Grinder

UPC	Diameter (in)	Max RPM	Unit/Case
638060-88566-6	4.5-5	11,500	1/1

3M™ Electric Angle Grinder

NEW 60440-24513-6	6, Paddle Switch	9,300	1/1
NEW 60440-24512-8	4.5-5, Slide Switch	11,500	1/1
NEW 60440-24511-0	4.5-5, Paddle Switch	11,500	1/1

3M™ Pneumatic Sander

638060-88577-2	4.5-5	11,500	1/1
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3M™ Cubitron™ 3 Fibre Disc 1187C

UPC	Grade	Diameter (in)	Max RPM	Unit/Case
Standard Round Hole				
068060-66460-0	36+	4 × 5/8	15,000	25/100
068060-66451-8	36+	4-1/2 × 7/8	13,300	25/100
068060-66452-5	36+	5 × 7/8	12,000	25/100
068060-66453-2	36+	7 × 7/8	8,600	25/100
068060-66454-9	36+	9-1/8 × 7/8	6,600	25/100
NEW 068060-67091-5	60+	4-1/2 × 7/8	13,300	25/100
NEW 068060-67092-2	60+	5 × 7/8	12,000	25/100
NEW 068060-67093-9	60+	7 × 7/8	8,600	25/100
NEW 068060-67094-6	60+	9-1/8 × 7/8	6,600	25/100
NEW 68060671028	80+	4-1/2 × 7/8	13,300	25/100
NEW 68060671042	80+	5 × 7/8	13,300	25/100
NEW 68060671059	80+	7 × 7/8	8,600	25/100
NEW 68060671066	80+	9-1/8 × 7/8	6,600	25/100
TN Quick Change				
068060-66455-6	36+	4-1/2	13,300	25/100
068060-66456-3	36+	5	12,000	25/100
068060-66457-0	36+	7	8,600	25/100
NEW 06806-067095-3	60+	4-1/2	13,300	25/100
NEW 06806-067096-0	60+	5	12,000	25/100
NEW 06806-067097-7	60+	7	8,600	25/100
NEW 06806-067102-8	80+	4-1/2 × 7/8	13,300	25/100
NEW 06806-067104-2	80+	5 × 7/8	12,000	25/100
GL Quick Change				
068060-66458-7	36+	4-1/2	13,300	25/100
068060-66459-4	36+	5	12,000	25/100

3M™ Disc Back-up Pad - One piece

UPC	Hardness	Diameter (in)	Max RPM	Unit/Case
068060-11224-8	Extra Hard - Red	4	15,000	10/10
638060-88655-7	Extra Hard - Red	4-1/2	13,300	10/10
638060-88656-4	Extra Hard - Red	5	12,000	10/10
068060-11225-5	Extra Hard - Red	6*	10,000	10/10
638060-88657-1	Extra Hard - Red	7	8,600	10/10
NEW 068060-11226-2	Hard - Black	4	15,000	10/10
NEW 068060-11227-9	Hard - Black	4-1/2	13,300	10/10
NEW 068060-11228-6	Hard - Black	5	12,000	10/10
NEW 068060-11229-3	Hard - Black	6*	10,000	10/10
NEW 068060-11230-9	Hard - Black	7	8,600	10/10
NEW 068060-11231-6	Medium - Gray	4	15,000	10/10
NEW 068060-11232-3	Medium - Gray	4-1/2	13,300	10/10
NEW 068060-11233-0	Medium - Gray	5	12,000	10/10
NEW 068060-11234-7	Medium - Gray	6*	10,000	10/10
NEW 068060-11235-4	Medium - Gray	7	8,600	10/10

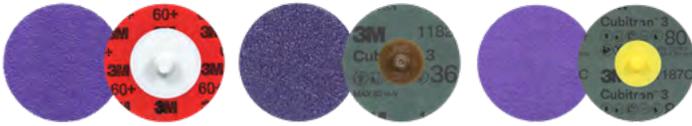
*Coming soon

3M™ Disc Back-up Pad Mounting Kit (Not required for use with 3M™ Pneumatic Angle Grinder or Sander)

638060-88968-8	3M™ Retainer Nut PN 02618, 3/16" PG Wheel Spacer and 1/8" Spacer	1/1
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TECH TIP: Keep discs in the closed, resealable foil bag to help maintain disc shape and quality when not in use.

Product Ordering Information



3M™ Cubitron™ 3 Roloc™ Disc

	Button TR	Button TSM	Size (in.)	Grade	Unit/Case
	3M™ Cubitron™ 3 Roloc™ Durable Edge Disc 1184F				
NEW	068060-66900-1	068060-66918-6	1-1/2	36+	50/200
NEW	068060-66901-8	068060-66919-3	1-1/2	60+	50/200
NEW	068060-66902-5	-	1-1/2	80+	50/200
NEW	068060-66903-2	068060-66920-9	2	36+	50/200
NEW	068060-66905-6	068060-66921-6	2	60+	50/200
NEW	068060-66907-0	068060-66922-3	2	80+	50/200
NEW	068060-66909-4	068060-66923-0	3	36+	50/200
NEW	068060-66911-7	068060-66924-7	3	60+	50/200
NEW	068060-66913-1	068060-66925-4	3	80+	50/200
NEW	068060-66915-5	-	4	36+	25/100
NEW	068060-66916-2	-	4	60+	25/100
	3M™ Cubitron™ 3 Roloc™ Fibre Disc 1182C				
NEW	068060-66926-1	-	2	36+	50/200
NEW	068060-66927-8	06806-066937-7	2	60+	50/200
NEW	068060-66928-5	-	2	80+	50/200
NEW	068060-66929-2	068060-66939-1	3	36+	50/200
NEW	068060-66930-8	-	3	60+	50/200
NEW	068060-66931-5	068060-66938-4	3	80+	50/200
NEW	068060-66932-2	-	4	36+	25/100
NEW	068060-66933-9	-	4	60+	25/100
	3M™ Cubitron™ 3 Roloc™ Fibre Disc 1187C				
NEW	068060-66940-7	068060-66951-3	1-1/2	60+	50/500
NEW	068060-66941-4	-	2	36+	50/200
NEW	068060-66942-1	-	2	60+	50/200
NEW	068060-66943-8	-	2	80+	50/200
NEW	068060-66944-5	068060-66952-0	3	36+	50/200
NEW	068060-66945-2	068060-66953-7	3	60+	50/200
NEW	068060-66946-9	068060-66954-4	3	80+	50/200
NEW	068060-66947-6	-	4	80+	25/100

*Ask for other dimensions availability.

Pads for Roloc™ Discs

Button TR	Button TSM or TS	Grade	Hardness	Size (in.)
051144-45100-5*	051144-77728-0*	36+	Extra Hard or Hard*	1-1/2
051144-45097-8	051144-14212-5*			2
051144-45093-0	051144-14216-3*			3
051141-28475-0	051141-28578-8*			4
051144-45096-1	051144-14212-5	60+	Hard	2
051144-45091-6	051144-14216-3			3
051141-28474-3	051141-28578-8			4
051144-45099-2	051144-77729-7	80+ & 120+	Medium or Hard*	1-1/2
051144-45095-4	051144-14211-8			2
051144-45092-3	051144-14215-6			3
051144-83242-2	051141-28578-8*			4



3M™ Roloc™ Sander

UPC	Diameter (in)	Max RPM	Box/Case
60440-24350-3	3	15,000	1/1
60440-24244-8	2	20,000	1/1





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