3M | Cubitron™ 3
Performance Abrasives

# Produce more. With less.

## 3M™ Cubitron™ 3 Fibre Discs

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

**3M™ Cubitron™ 3 Fibre Discs 1182C, 36+ and 1187C, 36+**

# 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
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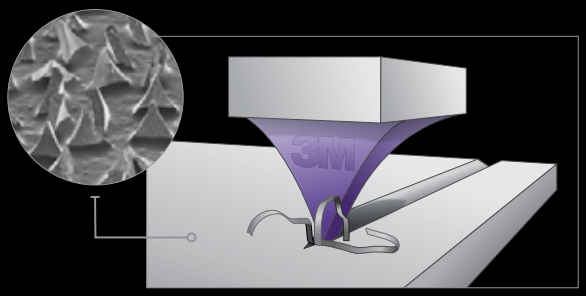
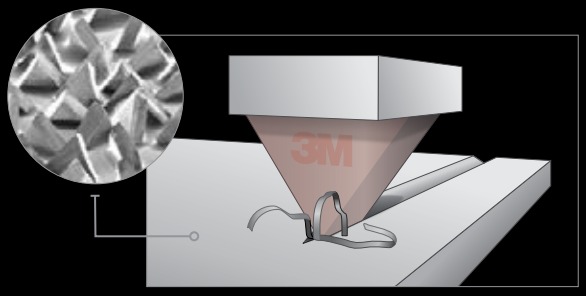


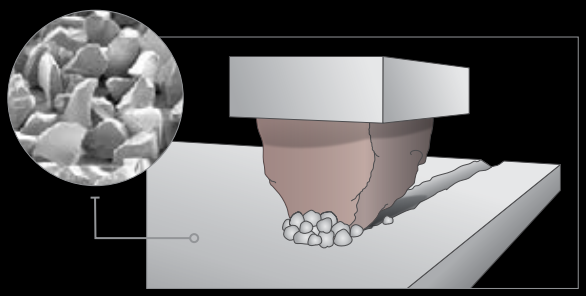

**Our latest 3M Precision-Shaped Grain**

Re-engineered precision-shaped ceramic triangular grain using a proprietary breakthrough in grain shape. 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**

# 3M™ Cubitron™ 3 Fibre Disc 1182C, 36+

### Faster cut rate

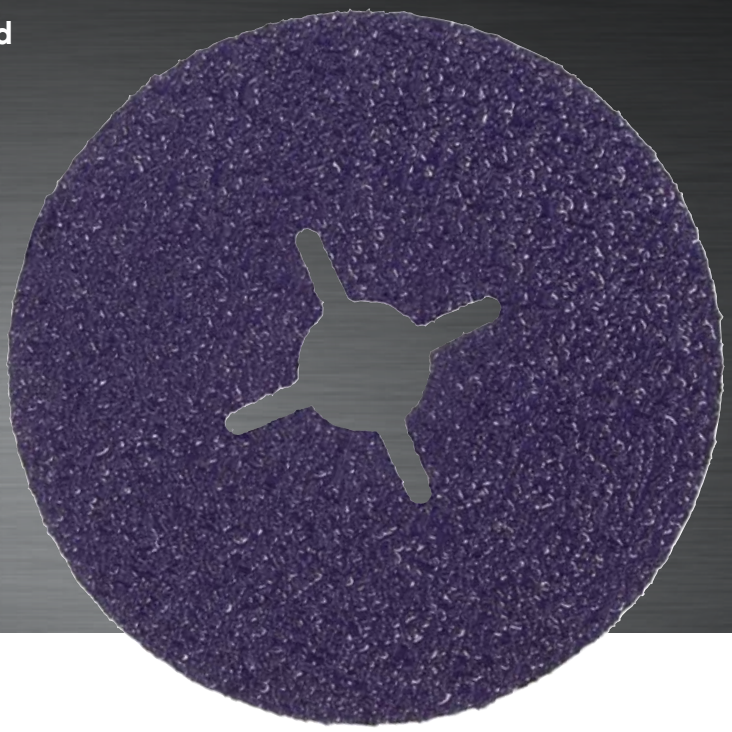
Long lasting and faster cutting fibre discs help increase productivity and your bottom line

### Total material removed

Fewer changeouts needed and less downtime

### Less operator fatigue

Designed to cut with less pressure



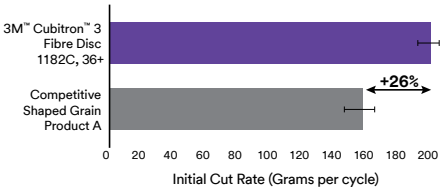
More parts per disc

Faster throughput

Cool cutting

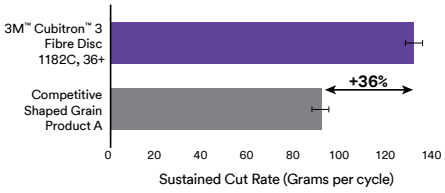
## Mild steel grinding

Up to
**26%**
**Faster initial cut rate***



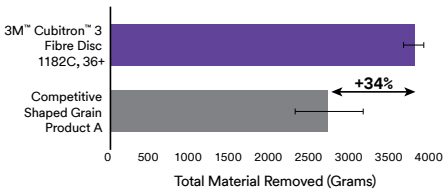

**Mild Steel: the 'initial cut rate' claim is determined from averaging the cut/cycle from cycles 1–2 (first two minutes of grinding). Each cycle on the test method is 1 minute of grinding time. Error bars represent the results with a 95% confidence level.**

Up to
**36%**
**Faster sustained cut rate***




**Mild Steel: the 'sustained cut rate' claim is determined from averaging the cut/cycle from cycles 7–20 (which is 14 minutes of grinding). Error bars represent the results with a 95% confidence level.**

Up to
**34%**
**More total material removed***




**Mild Steel: the 'total material removed' claim is determined by averaging the amount of metal ground over the entire test method (30 cycles or 30 minutes of grinding). Error bars represent the results with a 95% confidence level.**

***Compared to Competitive Shaped Grain Product A. Results are based on an automated, 30-minute, high pressure test on 1018 steel using 180mm 36+ grit fibre discs and 3M™ Disc Pad Face Plate Ribbed 80514 on a servo motor.**

# 3M™ Cubitron™ 3 Fibre Disc 1187C, 36+

### Faster cut rate

Long lasting and faster cutting fibre discs help increase productivity and your bottom line

### Total material removed

Fewer changeouts needed and less downtime

### Less operator fatigue

Designed to cut with less pressure

### Grinding aid

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

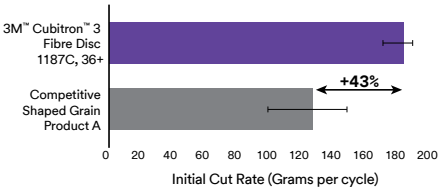
More parts per disc

Faster throughput

Cool cutting

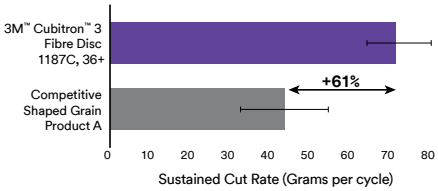
## Stainless steel grinding

Up to
**43%**
**Faster initial cut rate***



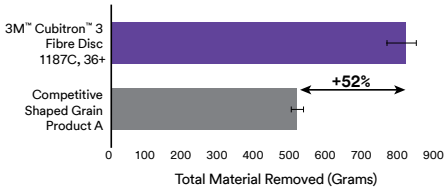

**Stainless Steel: the 'initial cut rate' claim is determined from averaging the cut/cycle from cycles 1–2 (first two minutes of grinding). Each cycle on the test method is 1 minute of grinding time. Error bars represent the results with a 95% confidence level.**

Up to
**61%**
**Faster sustained cut rate***




**Stainless Steel: the 'sustained cut rate' claim is determined from averaging the cut/cycle from cycles 3–6 (which is 4 minutes of grinding). Error bars represent the results with a 95% confidence level.**

Up to
**52%**
**More total material removed***




**Stainless Steel: the 'total material removed' claim is determined by averaging the amount of metal ground over the entire test method (10 cycles or 10 minutes of grinding). Error bars represent the results with a 95% confidence level.**

***Compared to Competitive Shaped Grain Product A. Results are based on an automated, 10-minute, high pressure test on 304 steel using 180mm 36+ grit fibre discs and 3M™ Disc Pad Face Plate Ribbed 80514 on a servo motor.**

# 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.

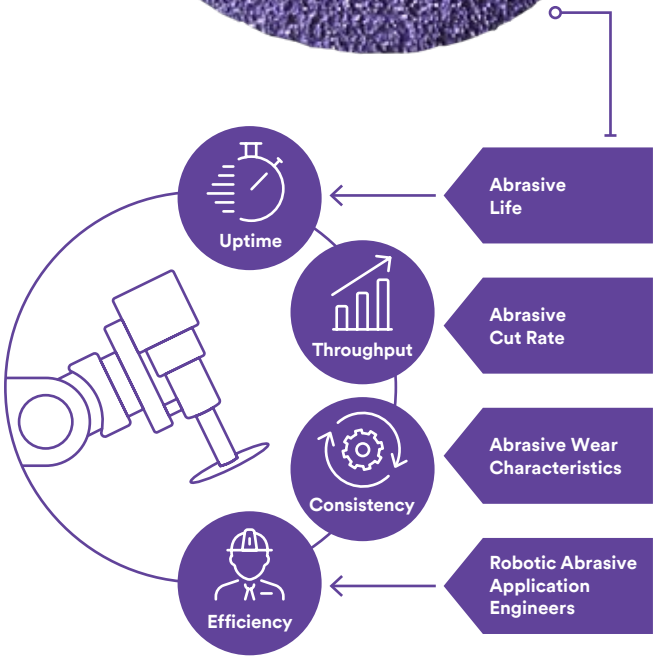
Manual operators are constrained by the amount of force they can apply and the angles they can hold a tool. Automation removes many of these constraints, working consistently and repeatedly at targeted angles and an optimized level of force and speed. A robot however, is still constrained by the abrasives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

# Product Ordering Information

## 3M™ Cubitron™ 3 Fibre Disc 1182C, Grade 36+

| Product | Product ID | Diameter (mm) | Max RPM | Box/Case |
|---|---|---|---|---|
|  | 60440613077 | 100 × 16 | 15,000 | 25/100 |
| | 60440613085 | 115 × 22 | 13,300 | 25/100 |
| | 60440613093 | 125 × 22 | 12,250 | 25/100 |
| | 60440613119 | 180 × 22 | 8,500 | 25/100 |

## 3M™ Cubitron™ 3 Fibre Disc 1187C, Grade 36+

| Product | Product ID | Diameter (mm) | Max RPM | Box/Case |
|---|---|---|---|---|
|  | 60440613234 | 100 × 16 | 15,300 | 25/100 |
| | 60440613242 | 115 × 22 | 13,300 | 25/100 |
| | 60440613259 | 125 × 22 | 12,250 | 25/100 |
| | 60440613275 | 180 × 22 | 8,500 | 25/100 |

## 3M™ High Pressure Fibre Disc Back Up Pads (Red)

| Product | Product ID | Diameter (mm) | Part Number | Max RPM | Density Rating |
|---|---|---|---|---|---|
|  | DE272923777 | 125 | 64861 | 12,000 | Extra Hard |
| | DE272923785 | 180 | 64862 | 8,500 | Extra Hard |

## 3M™ Fibre Disc Back Up Pads (Black)

| Product | Product ID | Diameter (mm) | Part Number | Max RPM | Density Rating |
|---|---|---|---|---|---|
|  | XC003410104 | 100 | 07312 | 15,200 | Hard |
| | XC003410039 | 115 | 09583 | 13,200 | Hard |
| | XC003410047 | 125 | 09584 | 12,000 | Hard |
| | DC272921404 | 180 | 09921 | 8,500 | Hard |

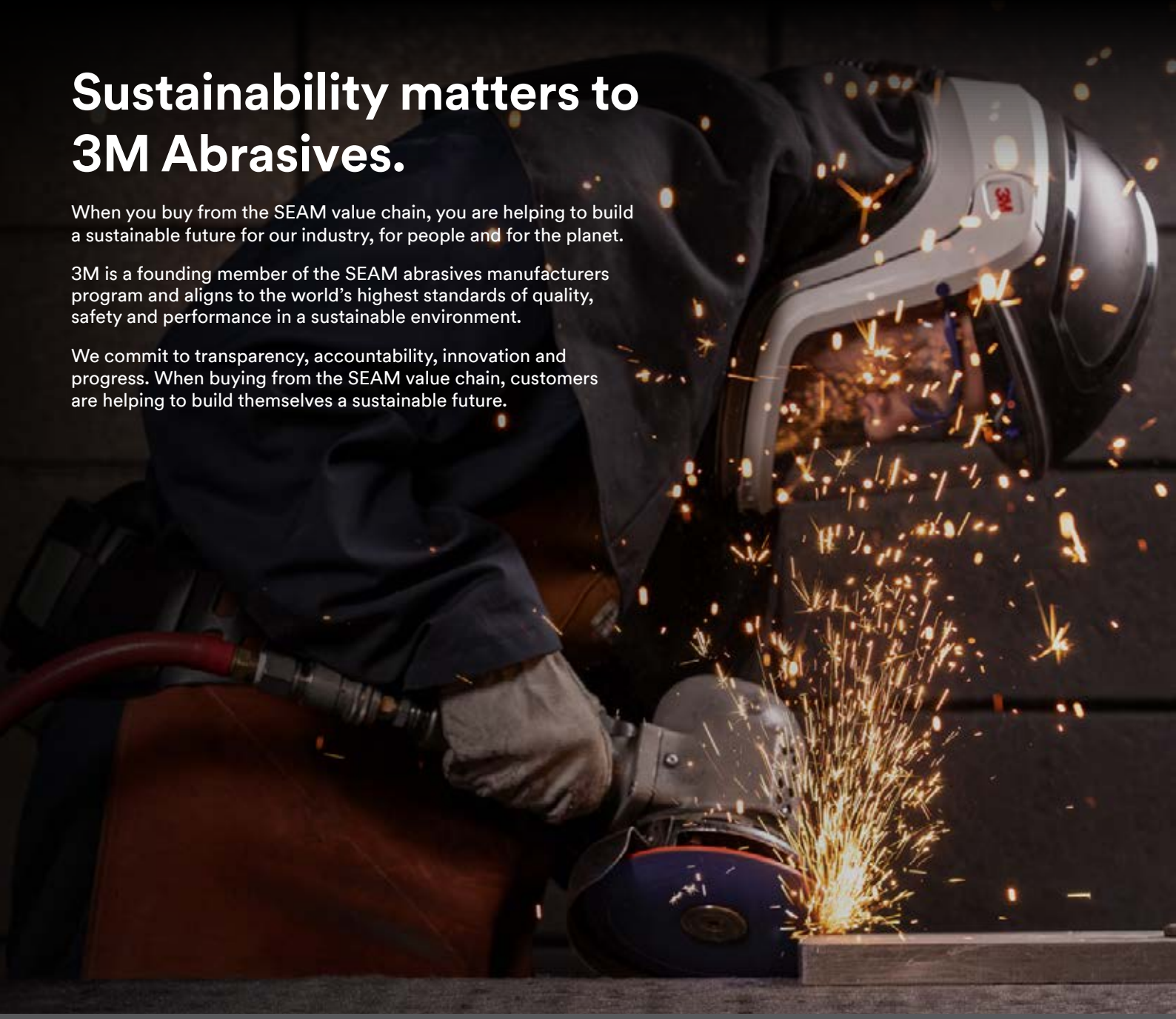
**TECH TIP:** ***Keep discs in the closed, resealable foil bag to help maintain disc shape and quality when not in use.***

# Sustainability matters to 3M Abrasives.

When you buy from the SEAM value chain, you are helping to build a sustainable future for our industry, for people and for the planet.

3M is a founding member of the SEAM abrasives manufacturers program and aligns to the world's highest standards of quality, safety and performance in a sustainable environment.

We commit to transparency, accountability, innovation and progress. When buying from the SEAM value chain, customers are helping to build themselves a sustainable future.



SEAM™

Sustainable European Abrasive Manufacturers

**Find out more at www.seam.earth**

**Get the discs that get more done at go.3M.com/FibreDiscsNZ**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