



3M Science.
Applied to Life.™

3M™ Abrasives For Hand Tools

**Gets the
job done**

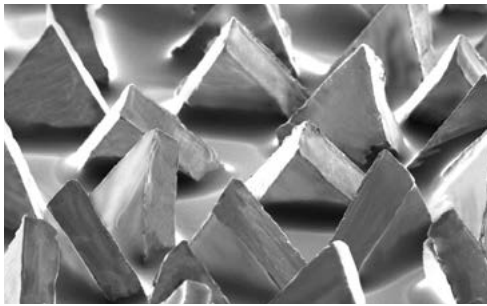
With more control,
more productivity
at each finishing step

3M™ abrasive technologies.

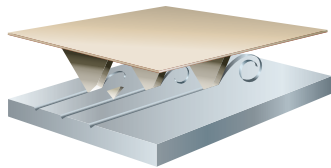
When it comes to hand tools, you need speed, durability and efficiency from the products you work with. You need hard-working abrasive belts that know their purpose – getting the job done right so you can focus on the job ahead.

That's where we can help, and **it all starts with better science.**

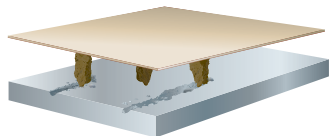
The science of speed



3M™ Cubitron™ II Abrasives are comprised of precisely-shaped, uniformly-sized and vertically-oriented triangles of ceramic aluminum oxide. These self-sharpening triangles are designed to fracture as they wear, continuously forming new, super-sharp points and edges that slice cleanly through the metal like a knife, instead of gouging or plowing. This prevents heat from building up in the workpiece – reducing heat-related stress cracks and discoloration. And, because the abrasive itself stays cooler and sharper, it lasts up to four times as long as conventional ceramic grain belts!



As the triangular shaped grain wears, it continuously fractures to form sharp points and edges that result in faster, cooler cutting action.



In contrast, conventional ceramic abrasive grain is irregular and blocky in shape. Instead of a clean, machining action, the grain tends to "plow" through the metal, causing heat to build up in the workpiece and the abrasive – resulting in a slower cut, shorter belt life and undesirable effects, such as burnishing.

The science of smooth

Scotch-Brite™ Abrasive Products

The Scotch-Brite line of surface conditioning products includes a variety of non-woven synthetic fiber webs and molded wheels impregnated with abrasive minerals. These products are well-suited for cleaning, blending, deburring, finishing and polishing, and improve surfaces without significantly changing the shape or dimension of the workpiece.

Scotch-Brite abrasives run cool, and resist loading due to their open web construction. This reduces the risk of part discoloration and warping, while extending the life of the wheel.



Scotch-Brite Weave, Pictured at 500 µm

Heavy Stock Removal and Rough Dimensioning

3M Abrasives are ideal for both robotic and off-hand removal of mill scale, rough dimensioning, parting lines, gates and flashing. The consistent high-performance and cutting efficiency of 3M abrasives makes it easier for you to meet customer cost and delivery targets – even on exotic, difficult-to-process alloys and ceramic coatings. Designed to be “user friendly,” these advanced, long-lasting abrasives help ensure predictable, quality results with less reliance on operator skill.



3M™ Cubitron™ II 984F Abrasive Belt

- Excellent in medium/high pressure stainless and carbon steels and cobalt chrome
- Long belt life, producing more parts per belt with fewer belt changes
- Durable polyester cloth backing
- Available in grades 36+, 50+, 60+, 80+ and 120+.



Surface Refinement

3M offers a variety of solutions designed to reduce abrasive process steps and increase the number of parts produced per belt. The products featured here are used for removing scale, gate witness blending and removing surface imperfections, including light and heavy burs. Their high efficiency and long life not only can help reduce the cost of labor and consumables, but can also speed delivery time.



3M™ Cubitron™ II 784F Abrasive Belt

- Excellent in medium pressure applications in a variety of different metals
- Strong value for medium pressure grinding and dimensioning
- Polyester waterproof backing
- Available in grades 36+ to 180+



3M™ 384F Abrasive Belt

- Workhorse for general purpose metalworking applications
- Consistent performance on all metals at a great value
- Waterproof X-weight polyester backing
- Available in grades 36+ to 240+; P320-400



3M™ Cubitron™ II 723D Abrasive Belt

- Strong value without sacrificing performance
- J-weight backing for flexibility on tight contours
- Available in grades 100+ to 220+



3M™ Scotch-Brite™ Durable Flexible Belts

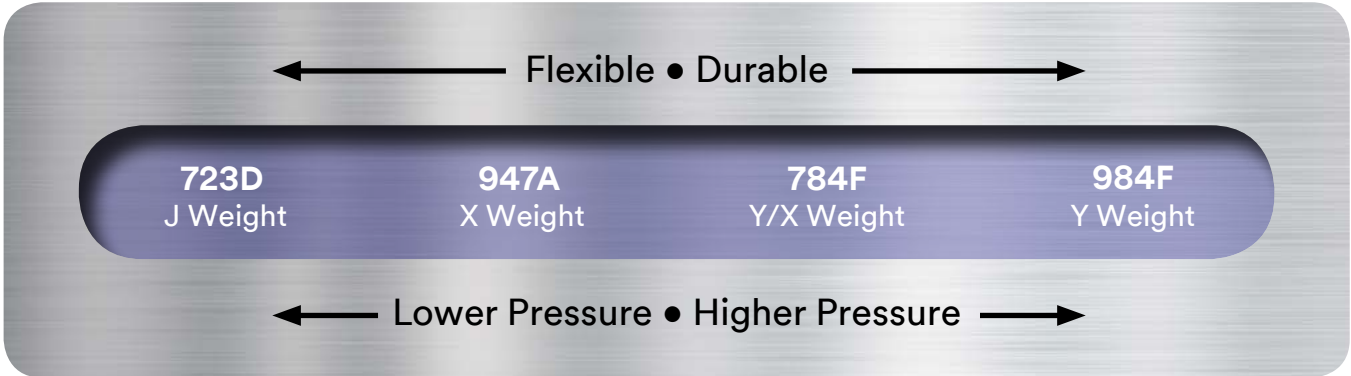
- Tough, non-woven belt is effective for deburring, blending and cleaning
- High flexibility resists “chunking” and performs well on belt sanders with small contact wheels
- Provides controlled cut to eliminate gouging and leaves a burr free finish



3M™ Cubitron™ II 947A Abrasive Belt

- Optimized for medium/low pressure applications on stainless, mild steel and aluminum
- X-weight poly-cotton backing provides greater flexibility
- Use in dry applications
- Available in grade 40+ to 120+





Notes:

- 3M™ 384F Cloth Abrasive Belt is a good option for low to medium pressure applications
- Scotch-Brite Durable Flex belts are good finishing options

Deburring, Finishing and Polishing

3M Offers a variety of advanced abrasive technologies for deburring, finishing and polishing. Designed to save time and steps, 3M abrasives are suited to today’s difficult-to-process alloys and other advanced materials, making it easier for you to deliver the surface finishes and tolerances your customers demand – on-time and on-budget.

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Scotch-Brite™ EXL Deburring Wheel

- Excellent choice for deburring and creating a radius
- Conformable and smooth running
- A unique resin system reduces heat build-up
- Available with aluminum oxide mineral in medium grades
- Silicon carbide available in fine and medium grades



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