NORTON RAZORSTAR®
R990S BELT RANGE

GRIT: 36+
BACKING: Y WEIGHT POLYESTER
FEATURES: TOPSIZE COOLING LAYER
USE: ROBOTIC, OFF-HAND AND ASSISTED

In all applications, use a hard contact wheel (80 shore) to optimise the grinding application.

Industry-standard belt sizes are shown in the table below, while additional dimensions can be made available upon request.

Size (mm)	Grit	Article No.
50 x 2000	36+	66254427525
50 x 2500	36+	66254422505
50 x 3500	36+	66254422506
50 x 4000	36+	66254422507
75 x 2000	36+	66254427271
75 x 2500	36+	66254427524
75 x 3000	36+	66254422509
75 x 3500	36+	66254422510
75 x 4000	36+	66254422512

For unbeatable grinding results, contact your local representative and put Norton RazorStar® belts to the test today.

WATCH THIS SPACE...

Our ongoing commitment to sustainable innovations means that these belts are just the start of the new Norton RazorStar® range of abrasives.

www.nortonabrasives.com
www.youtube.com/NortonAbrasivesEMEA

⦰SEAM™
www.seam.earth

NORTON **RAZORSTAR®**
SAINT-GOBAIN

Transforming surfaces ...and beyond

UNBEATABLE GRINDING PERFORMANCE

NORTON RAZORSTAR® BELTS
FEATURING ENGINEERED SHAPED CERAMIC GRAIN

SAINT-GOBAIN

SHARPER **THAN EVER**

NORTON | **RAZORSTAR®**
SAINT-GOBAIN

NEXT GENERATION BELTS. GRINDING DOWN YOUR PROCESS COST.

Norton RazorStar® R990S 36+ is setting a new standard in grinding productivity, speed and life.

Designed for medium to high pressure metal removal in the toughest robotic and off-hand applications, RazorStar® belts feature 100% engineered shaped ceramic grain which cuts through metal with unbeatable performance.

PRODUCE MORE PARTS WITH FEWER BELTS AND SAVE TIME AND MONEY IN YOUR GRINDING OPERATIONS.

INCREASED EFFICIENCY

IMPROVED PERFORMANCE

IMPROVED QUALITY

REDUCED MACHINE TIME

MORE PARTS PER BELT

REDUCED ENERGY CONSUMPTION

FASTER, LONGER, COOLER GRINDING

HIGHER CUT RATE

A breakthrough innovation of razor-sharp ceramic grain, with a tough microstructure, cuts faster and removes more material. This is combined with the highest percentage of grains applied to the backing in an upright position for **razor-sharp cutting.**

LONGER LIFE

Unique patented geometry enables the grain to stay sharp as new razor-sharp edges are exposed as the grain fractures. The innovative design of Norton RazorStar® promotes **improved grain retention, providing unparalleled belt life.**

COOLER CUT

The unique sharp design of the grains, combined with the belt's **special topsize grinding aid, helps to significantly reduce heat generation –** resulting in less thermal damage to the workpiece.

THE RESULT:
UNBEATABLE GRINDING PERFORMANCE AND LOWER GRINDING COST
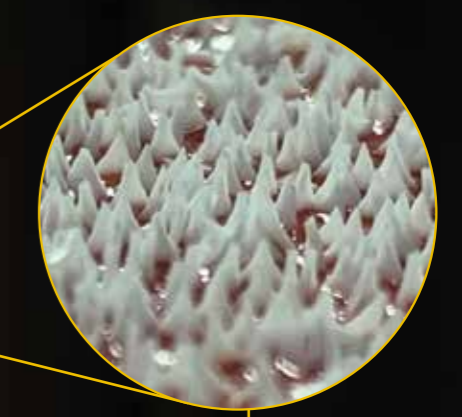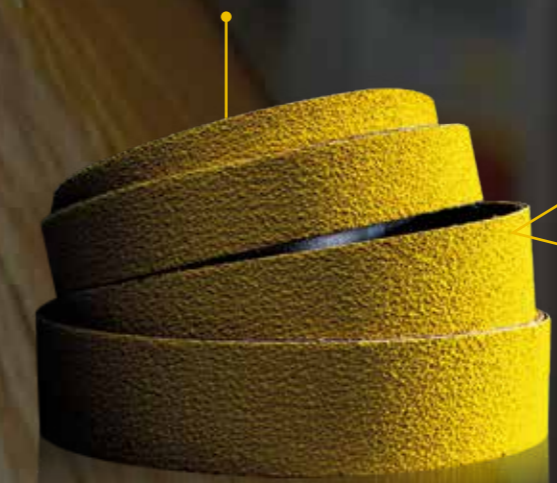
MORE UPRIGHT GRAIN FOR RAZOR-SHARP CUTTING

A BREAKTHROUGH
IN SHAPED CERAMIC GRAIN

Saint-Gobain's engineered shaped ceramic grain is a breakthrough technology specifically designed to deliver unbeatable grinding performance versus all other conventional ceramic grain belts in the market.

UPRIGHT GRAIN
PRIMED TO CUT

Norton RazorStar® belts fully leverage the sharpness of the engineered shaped grain. Grains that lie flat do not cut, so thanks to a new patent-pending method designed to position grains upright on the backing, belts deliver the sharpest grinding possible compared to competitor belts.

What's more, the high number of grains per unit area, topsize coating and heavy weight backing are designed to promote grain retention and self-sharpening fracturing, to maintain powerful grinding performance over prolonged periods in medium to high pressure applications.
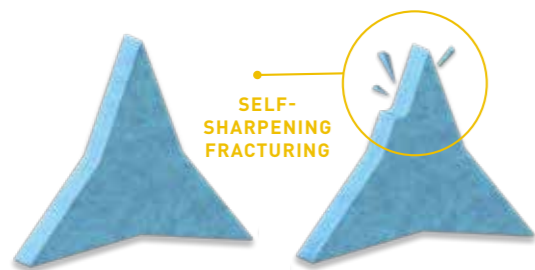
RAZOR
SHARP
TIP

UNIQUE
LINEAR
REGIONS
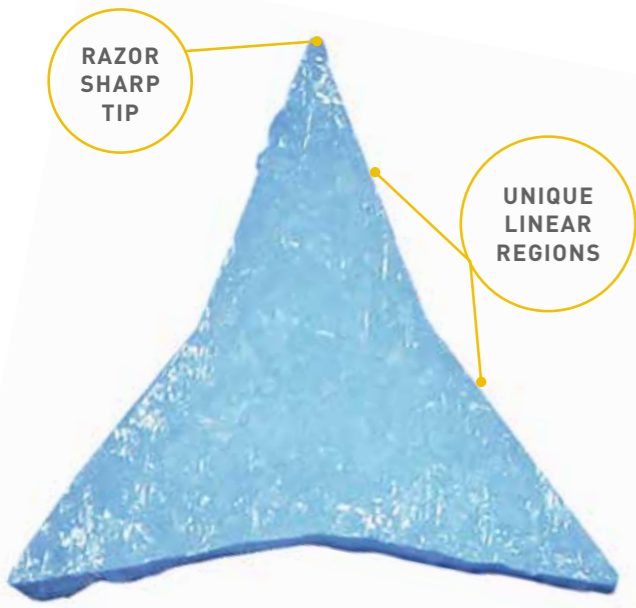
SHAPED CERAMIC GRAIN
HOW DOES IT WORK?

Unlike other shaped grains, those used in RazorStar® belts are formed by two linear regions which join to form razor-sharp tips.

It's these sharp tips that deliver a high initial cut and continue to slice through metal, throughout the entire belt life. Its tough microstructure and unique patented geometry, tuned for Seeded Gel chemistry, enables each grain to fracture into similar sharp shapes during grinding. What's more, this unique geometry ensures grain uniformity and consistency in shape, strength and cutting behaviour.
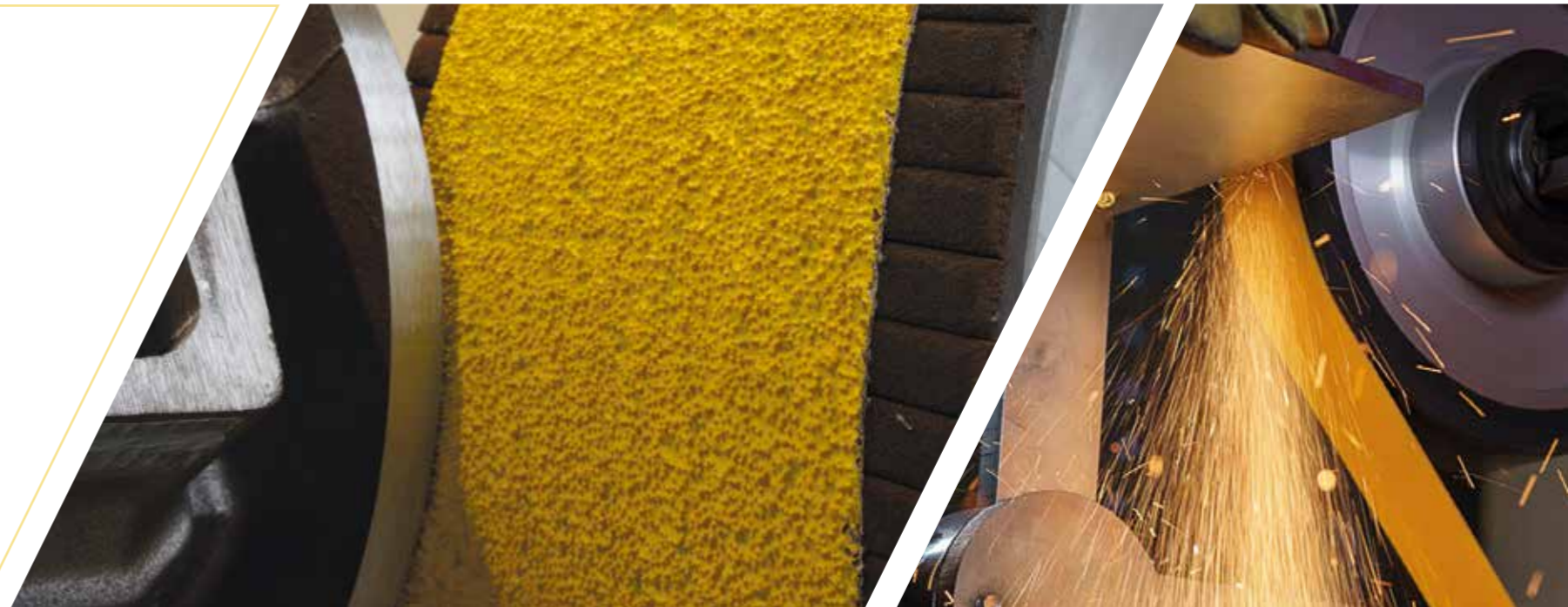
RAZORSTAR®
GRAIN REMAINS SHARP THROUGHOUT THE BELTS LIFE

SELF-
SHARPENING
FRACTURING

COMPETITOR
GRAIN FRACTURES TO A BLUNT EDGE

LESS ENERGY,
LESS WASTE

The outstanding cut rate of RazorStar® grain enables much faster grinding, this results in less machine time, reducing energy consumption by up to 20% on Stainless Steel vs. a ceramic shaped grain product, and up to 34% on Inconel vs. a ceramic shaped grain product*.

The extended life of RazorStar® can also significantly reduce belt waste by up to 57% on Stainless Steel vs. a ceramic shaped grain product (average of 32%), and up to 74% (average of 48%) on Inconel vs. a ceramic shaped grain product*.

*These results depend on exact test conditions (pressure, workpiece dimensions, operating speeds).
Evaluation is based on 11 different test protocols representative of our customers' belt applications.

HIGHER %
UPRIGHT GRAINS

RazorStar® belts have the highest percentage of grains oriented upright.

LOWER %
UPRIGHT GRAINS

Competitor belts have a lower percentage of grains oriented upright.

COOLER
CUTTING

LESS ENERGY
CONSUMPTION

REDUCED
WASTE

FOCUSING
ON APPLICATION

Norton RazorStar® R990S belts are specifically designed to perform in both manual applications and in machine-assisted or fully robotic grinding operations, particularly at medium to high material removal rates.

"A VERY GOOD TEST! THESE NORTON RAZORSTAR® BELTS WITHSTAND OUR HIGH-PRESSURE APPLICATION, PLUS THEY REMOVE MORE MATERIAL AND LAST LONGER"*

APPLICATIONS

- **Medium to high pressure rough grinding**
- **Gate removal**
- **Surface grinding**
- **Heavy stock removal**

INDUSTRIES

- **Steel and foundry**
- **General engineering**
- **Metal fabrication**
- **Aerospace**
- **Automotive**
- **Medical**

MATERIALS

- **Stainless steel**
- **Steel and other high nickel superalloys**
- **Titanium alloys**

PROVEN RESULTS VERSUS COMPETITOR

CASE STUDY #1

Component Composition: Steel S355
Belt Dimensions: 100 x 2220 mm
Machine: Edge Grinding
Application: Robotic
Belt Speed: 32 m/s
Power: 15 kw

+42%
MATERIAL REMOVAL
with more parts processed per belt

*(Bar chart: Total Material Removal [kg/belt] — Competitor vs Norton RazorStar®)*
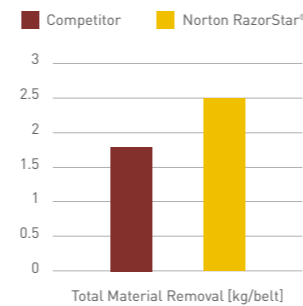
This means a reduction in manufacturing time and fewer belts used, resulting in less energy and less waste.

CASE STUDY #2

Component: Aluminium parts
Belt Dimensions: 75 x 3500 mm
Machine: Backstand
Application: Manual
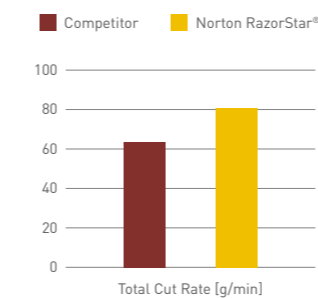**Belt Speed:** 37 m/s
Power: 2.2 kw

+16%
MATERIAL REMOVAL
With a faster cut rate even on hard to grind aluminium

(Bar chart: Total Material Removal [g/belt] — Competitor vs Norton RazorStar®)
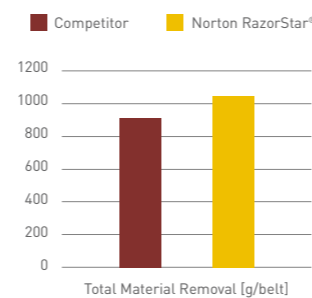
CASE STUDY #3

Component: Round steel bar
Belt Dimensions: 50 x 2450 mm
Machine: Backstand
Application: Semi-automatic
**Belt Speed:** 37 m/s
Power: 2.2 kw

+28%
CUT RATE

This means machine time needed to perform the same task is reduced, saving energy.

(Bar chart: Total Cut Rate [g/min] — Competitor vs Norton RazorStar®)

CASE STUDY #4

Component: Nickel & Chrome (orthopaedic implant grinding)
Belt Dimensions: 50 x 4000 mm & 100 x 4000 mm
Machine: Backstand
Application: Robotic
Belt Speed: 38 m/s
Power: 30 kw

+24%
LIFETIME

(Bar chart: Total Number Parts/Belt — Competitor vs Norton RazorStar®)
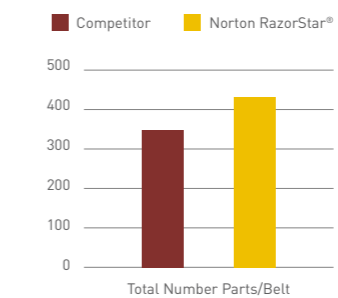
"TO REMOVE THIS MUCH MATERIAL, YOU NEED A TOP-NOTCH BELT. IMPRESSIVE QUALITY!"*

"IT MADE IT EASY, IT JUST KEPT GOING AT THE SAME LEVEL OF PERFORMANCE – START TO FINISH"*

"THIS BELT DELIVERS ON ALL FRONTS – IT CUTS MORE AND FASTER, AND IT LASTS LONGER!"*

*Comments from customers about Norton RazorStar® belts.