NORTON®

SAINT-GOBAIN

SURFACE SOLUTIONS FOR

CLADDED BRAKE DISCS

SAINT-GOBAIN

EURO 7 will introduce new standards,
including measures aimed at reducing fine particulate emissions (PM10) from cars.

To meet these targets, **new technologies and materials** are being developed for braking systems. A hard-to-grind coating is applied to each brake disc. Laser cladding—a precise technique that melts metallic powder using a laser beam—creates a wear- and heat-resistant coating on brake discs, enhancing their durability and performance. This coating layer, composed of carbide-based particles embedded in a stainless steel matrix, must then be ground to achieve the correct dimensions and surface patterns.

Since the layer composition and grinding strategy vary from case to case, continuous development is required to guarantee the most optimized grinding tools and reduce grinding costs.
In partnership with machine manufacturers and laser cladding companies, Saint-Gobain Abrasives has been consistently developing **the best grinding solutions.**

CONTINUOUS DEVELOPMENT

Our **European Grinding Technology Center** is located in the heart of our main manufacture of superabrasive tools in Hamburg Germany.
A simulation of the grinding processes of cladded brake disc has been set to determine the best specification and design for each layer type.

GRINDING SOLUTIONS

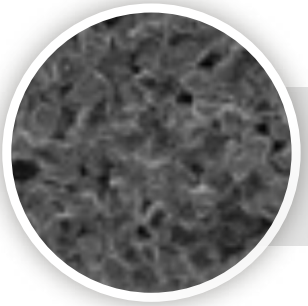
From our patented ultra porous Paradigm™ to our latest generation of Vitrified bond Segments.
We developped and implemented successfully our solutions to various grinding processes, reaching the lower Spindle Power, the higher lifetime and therefore the best cost per part.

WHAT IS PARADIGM™ ?

Paradigm™ is a patented Ultra-Porous Metal Bond technology specifically developed to grind the most demanding materials and coatings.
Set of grinding wheel available in glued or screwed segments

NORTON SAINT-GOBAIN PARADIGM

COMPETITOR



HIGH POROSITY
Norton Paradigm

VS

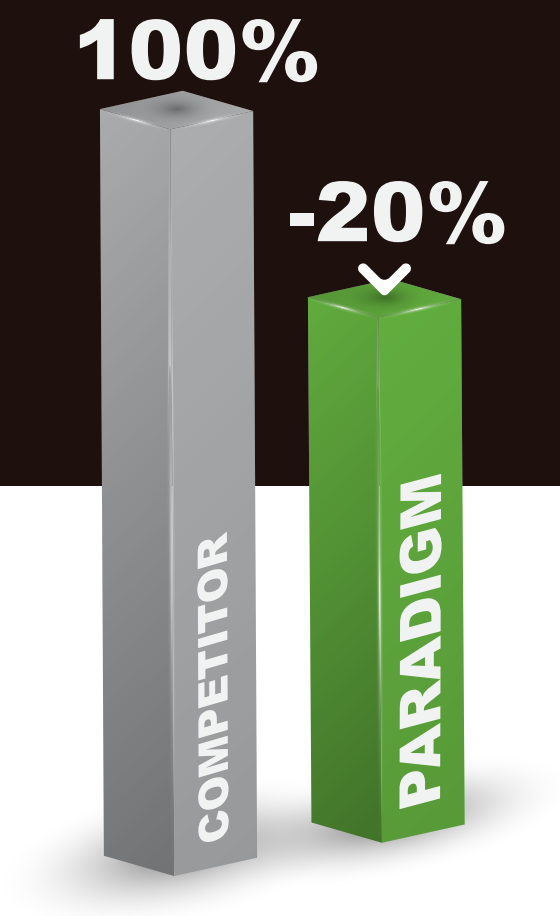
NO POROSITY
Metal / Hybrid Bond: no porosity

DESIGNED TO PERFORM:

- Abrasive type
- Concentration
- Porosity
- Geometry

COMBINES THE WEAR RESISTANCE OF A METAL-BONDED WHEEL WITH THE EASE OF PROFILING CHARACTERISTIC OF A VITRIFIED-BONDED WHEEL

- Patent-Protected bond technology
- Approved at aerospace industry on complex ceramic alloys
- Cost per part reduction
- Reduce power
- Perfect surface finish



POWER REDUCTION

The unique high-porosity Paradigm™ technology reduces friction and grinding forces, resulting in lower spindle power consumption.

WE AT SAINT-GOBAIN PUT A SPECIFIC GLOBAL FOCUS ON COATED BRAKE DISC

High performing product solutions, continuously evolving
Dedicated resources in Europe – R&D, Operations,
Sales Forces Specialized Application Engineers

Set of grinding wheel available in glued or screwed segments

SAINT-GOBAIN ABRASIVES

As a global leader in abrasives, we provide a comprehensive 360° solution for your application, backed by local support wherever you are.

Flexibility
Matching the product to the coating and production shift capacities

Quantity
High value mass production capacity per region

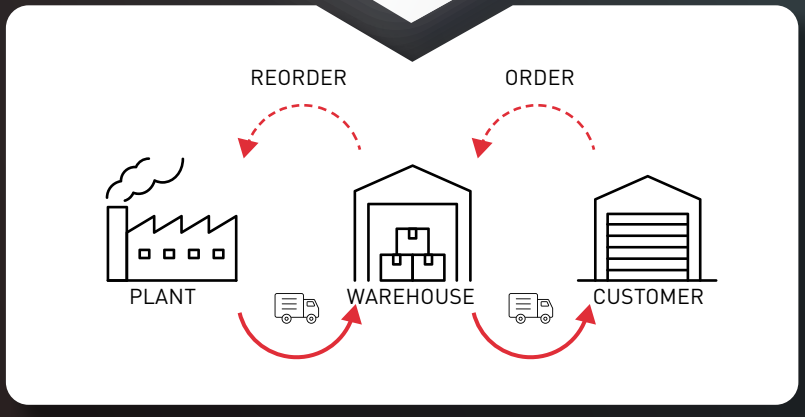
Engineering
Support to set up the COST PER PART by application engineers at the customer facility

Stock
Individual stock concept and low delivery time

Local
Common definition of the manufacturing region

NDA
Maximum confidentiality

NORTON
SAINT-GOBAIN
WINTER CONCEPT



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Looking for a custom solution to optimise your process?

Our abrasive experts are ready to meet with you on-site and provide tailored assistance.

Contact us today – we're here to help!

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

Form # 4585

SEAM™
Sustainable European Abrasive Manufacturers