

Reshaping  
your  
world™

# INFILTRATED HIGH DENSITY DIAMOND BLADES



LONGER LIFE  
FASTER CUT  
INCREASED SAFETY  
LOWER ENERGY  
PATENTED TECHNOLOGY

**NORTON**

SAINT-GOBAIN®



# THE BIGGEST BREAKTHROUGH IN DIAMOND TOOL TECHNOLOGY

Norton's Infiltrated High Density technology (iHD) combined with its patented diamond blades laser-welding process is the biggest breakthrough in Diamond Tools this century. Through many years of research and development this revolutionary process provides our customers with unrivalled performance, increased safety, lower energy manufacturing and a wider choice of segment design.

## APPLICATIONS FOR THE BUILDING & CONSTRUCTION MARKET

CUTTING

GRINDING

DRILLING

## MATERIALS

CONCRETE

ASPHALT

BUILDING MATERIALS

TILES

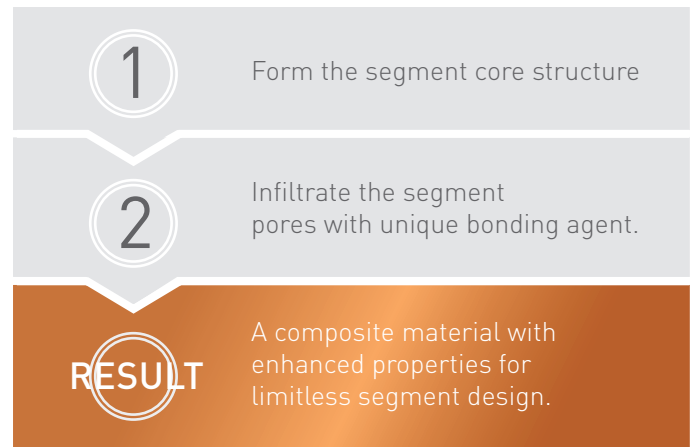
STONE

REFRACTORY MATERIALS

DUCTILE IRON

METALS

## A STREAMLINED 2-STEP PROCESS



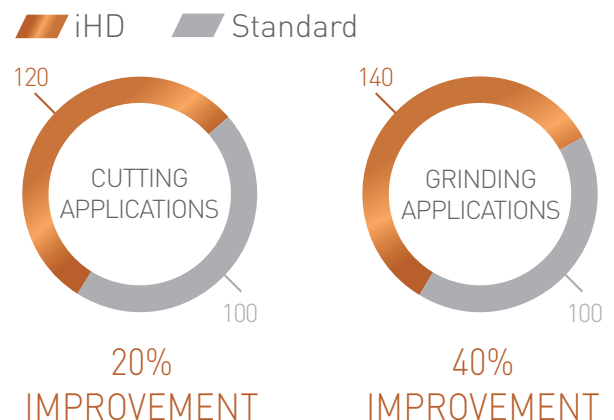
## UNIQUE PATENTED LASER WELDING OF INFILTRATED SEGMENTS

Infiltration achieves high uniform density across each whole segment without applying high pressure (like the standard process). This allows Norton to manufacture very robust segments which wear evenly, remain intact and perform faster at higher cutting speeds.

The diamond grit is an integral part of the segment structure. During the patented process a special bond impregnates the core structure and binds the diamond grit into the segment. This ensures optimum use of the diamond grit, giving the diamond tools a longer life.

Norton's optimized process also means increased segment design flexibility resulting in greater diversification of diamond blade shapes to best suit applications and materials being cut.

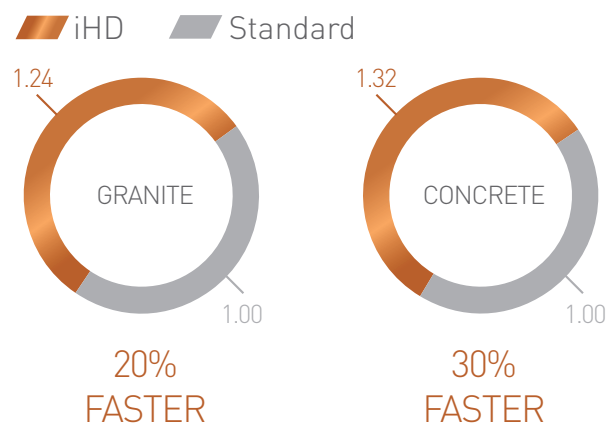
## RELATIVE TOOL LIFE COMPARISON



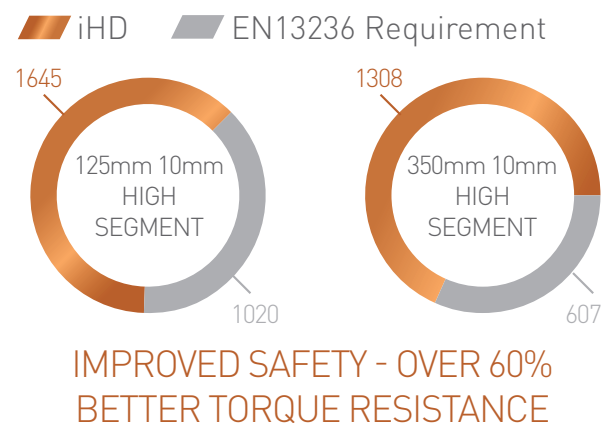
**LASER** INVENTED BY NORTON IN 1982

	FEATURE	BENEFIT
LONGER LIFE	An increased retention of diamond grits	A much longer tool life, by at least +20% Greater performance Best possible return on investment
FASTER CUT	New and innovative structures allow a very well balanced and steady bond wear for the whole life of the product	A much faster tool cutting speed, by +30% on average
INCREASED SAFETY	Very high and very uniform density across the whole segment, makes it almost unbreakable	A much higher bending resistance, resulting in 60% higher torque resistance for laser welded segments  An advanced safety breakthrough from the inventor of the laser-welded diamond blade  100% warranty against segment loss
GREATER COMFORT	The iHD manufacturing process enables many different segment shapes to be produced, resulting in innovative designs for smoother cutting	Reduced vibrations and effort while cutting Greater comfort for the end-user
LOWER ENERGY	The streamlined manufacturing process requires lower energy consumption	More environment friendly
WIDER CHOICE	iHD enables mass production of any segment shape, with no design restriction	New and unique diamond tool with greater differentiation between high performance diamond tools  Greater selection of products for specific applications  Clearer identification of Norton products
	All types of tool specification can be designed with iHD – from very abrasive to very hard materials	Ensures versatility - for applications and of materials to be cut
ADVANCED INNOVATION	More than six patent applications submitted by Saint-Gobain Abrasives	Many innovation awards highlight the benefits of this new process

## RELATIVE SPEED COMPARISON



## MIN TORQUE RESISTANCE COMPARISON N/MM<sup>2</sup>



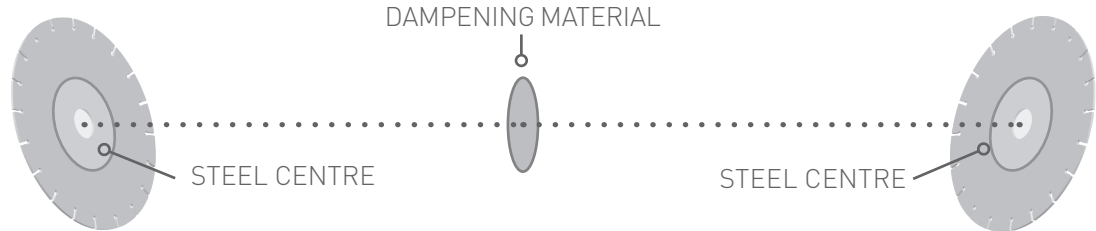


# HIGH DENSITY PRODUCTS

## NORTON SILENCIO



The new generation of silent diamond blades



### LONGER LIFE

### FEATURE

Up to 17mm high segments, with a bespoke specification for each different application

### BENEFIT

Amongst the best cutting in the Norton Clipper range, specifically designed for each machine type for best cutting performance

### FASTER CUT

Newly developed specification with corrugations to reduce frictions

Norton Silencio is among the fastest cutting Norton diamond blades

### GREATER COMFORT

Patented offset gullets prevent air from flowing through the steel-centre gullets  
Sandwich steel-centre with newly developed absorbing material

The blade does not whistle at all while running idle, for a much better operator comfort  
Features unprecedented noise-dampening effect reaching reductions of up to 15dB – 30 times less noise

## DUO BS-15

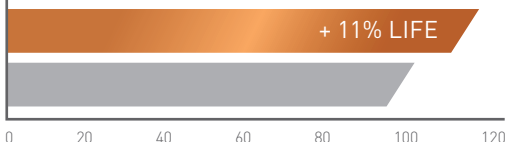


DUO BS-15 Standard

### SPEED



### LIFE



### LONGER LIFE

### FEATURE

15mm segment height with innovative segment shape

### BENEFIT

U-shape slanted segment increases the cutting speed, while the 15mm segment height enhances the product life.

### FASTER CUT

New segment specification

Fastest cutting block saw blade. Can cut in granite

### INCREASED SAFETY

High density segments

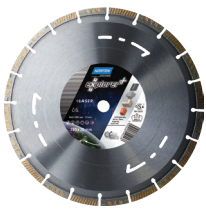
Up to +60% stronger laser-welding torque resistance

# HIGH DENSITY PRODUCTS

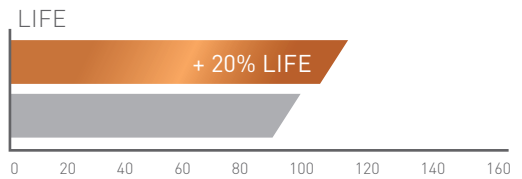
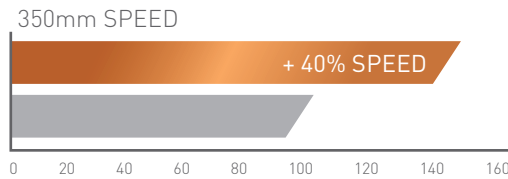
## NORTON 4x4 EXPLORER<sup>+</sup>



The new multi-purpose laser welded diamond blade



4x4 Explorer<sup>+</sup> Standard



### LONGER LIFE

Enhanced specification for improved life, especially for floor sawing  
12mm high segments  
High density and improved retention of diamond grits in segment

Up to +20% longer product life and better 'value for money' ratio

### FASTER CUT

The trapezoid shape segments provide a narrow, constant space between the segments  
The serrations on the segment face contribute to the cutting speed

One of the fastest cutting Norton blades  
The new segment specification brings up to 40% faster cutting speed in all materials

### INCREASED SAFETY

Very high uniform density across the whole segment

Up to +60% stronger laser-welding torque resistance vs. traditional process.  
100% warranty against segment loss

### GREATER COMFORT

The trapezoid shape segments provides a constant & narrow space between the segment during the whole product life

Better comfort, less vibrations and efforts while cutting, better quality of cut

### WIDER CHOICE

Segment specification works perfectly for all kinds of building materials and all type of light equipment types

Cuts all-purpose materials like granite, natural stones, reinforced concrete, blocks, bricks, green concrete and asphalt, as well as steel parts up to 5mm thickness

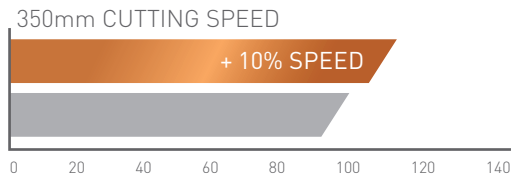
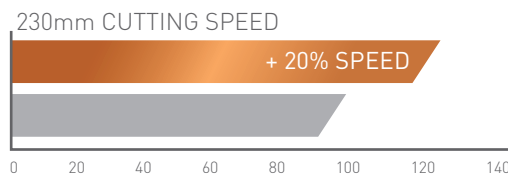
## NORTON CLIPPER DUO EXTREME<sup>+</sup>



The new very free-cutting laser welded diamond blade for hard materials



Duo Extreme<sup>+</sup> Standard



### LONGER LIFE

High density and improved retention of diamond grits in the segment

Increased segment height and improved specification  
Up to +20% longer product life

### FASTER CUT

New specifications can be designed with the iHD process, with impressive free-cutting performance

The fastest cutting diamond blade in the Norton Clipper range  
Up to +20% faster than previous version

### INCREASED SAFETY

Very high and uniform density across the whole segment

Up to +60% stronger laser-welding torque resistance vs. traditional process  
100% warranty against segment loss

### GREATER COMFORT

Innovative designs for smoother cutting

Better comfort, less vibrations and efforts while cutting, better quality of cut

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