

NORTON

SAINT-GOBAIN

WINTER



BACKGRINDING WHEELS

AGGRESSIVE ON MATERIAL REMOVAL WHILE SOFT ON FINISH

New Prisma Coarse Fixed Abrasive Vertical Spindle (FAVS) wheels allow for high stock removal and long wheel life while maintaining a high quality surface finish when grinding semiconductor wafers. With a patent-pending design these free-cutting wheels require extremely low forces minimizing the risk of sub-surface damage. Able to handle either wire sawn or laser sawn wafers, these wheels tackle even the sharpest features while achieving fast stock removal.

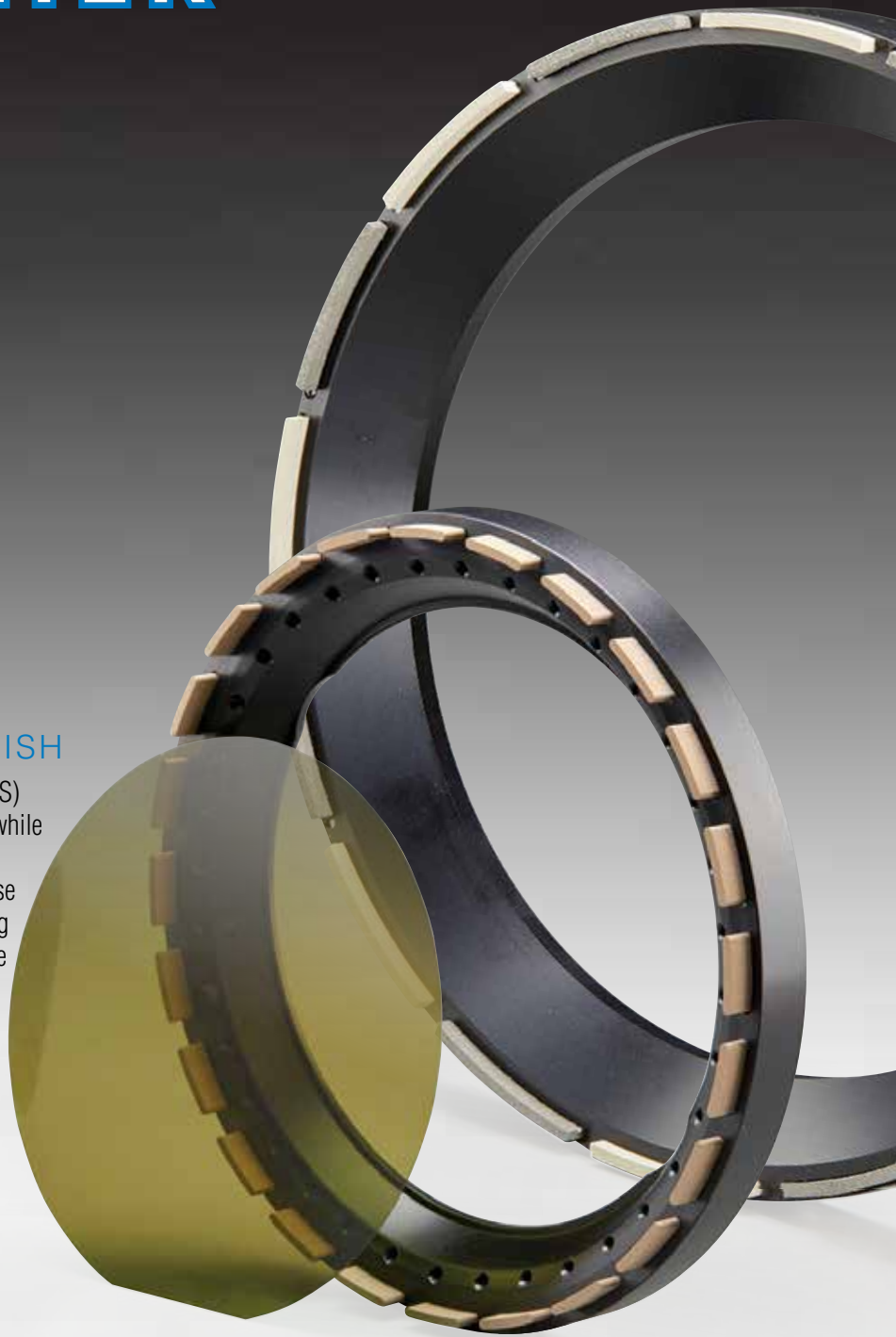
KEY MARKET SEGMENTS

SEMICONDUCTOR WAFER MANUFACTURING

KEY MATERIAL SEGMENTS

SILICON CARBIDE, AMBER, ALUMINA, STRUCTURAL CERAMICS, ADVANCED CERAMICS

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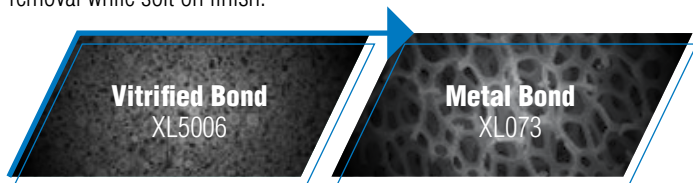
SAINT-GOBAIN

WINTER**PRISMA FAVS COARSE
BACKGRINDING WHEELS****FEATURES & BENEFITS**

- Grinds multiple incoming surface finishes (wire sawn, laser sawn, lapped, ground, polished) on wafer and boule
- Offers high stock removal for optimized productivity
- Easily grinds sharp features while maintaining good wheel life
- Lower grinding power for reduced sub-surface damage
- Combines the long life and superior finish of metal and vitrified bonds

**Vitrified and Metal Bond**

Hybrid wheel features alternating vitrified and metal bonded segments offering the benefits of both bond types in a single wheel - aggressive on material removal while soft on finish.

**Specifications**

COMMON WHEEL SIZES: 8", 10", 11", 12"

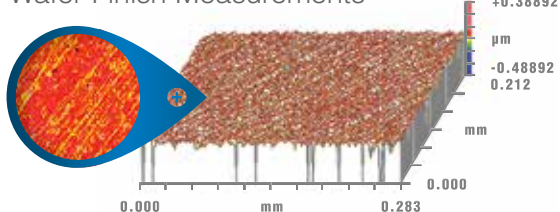
GRIT SIZE: From 320 mesh to 5000 mesh

BOND: Metal, Vitrified

CUSTOMIZATION: Size/Specification can be engineered upon request for optimized process independent of machine tool platform

OEMS: Revasum, Disco, Speedfam, Accretech, Okamoto

*Patent Pending

Wafer Finish Measurements

Ra	269	A	Size X	0.28	mm
Rz	7717	A	Size Y	0.21	mm
Rv	8778	A			
Peak	3889	A	Removed:	Cylinder	
Valley	-4009	A	Trimmed:	0	

Filter High Wavelen: μm
Filter Low Wavelen: μm

Case Study

APPLICATION:

150 mm 4H-N SiC Wafer

MACHINE:

Revasum 7AF-HMG

NORTON PRODUCT :

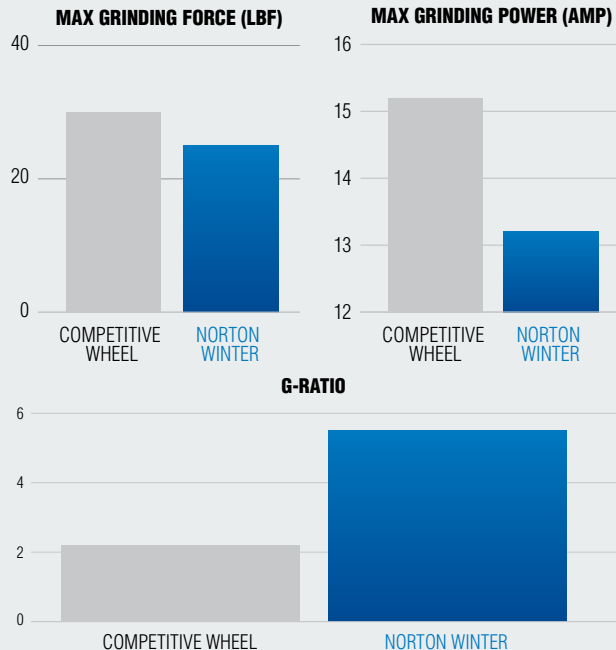
Prisma Coarse

COMPETITOR:

Competitive Backgrinding Wheel

RESULTS:

- The Prisma coarse wheel removed all damaged surfaces of the sliced wafers from Laser separation/Wire saw/Lapped
- Stable grinding power achieved with 10+ wafers ground
- More than 2X life versus the competitor with lower grinding force/power



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NO-RISK TEST

