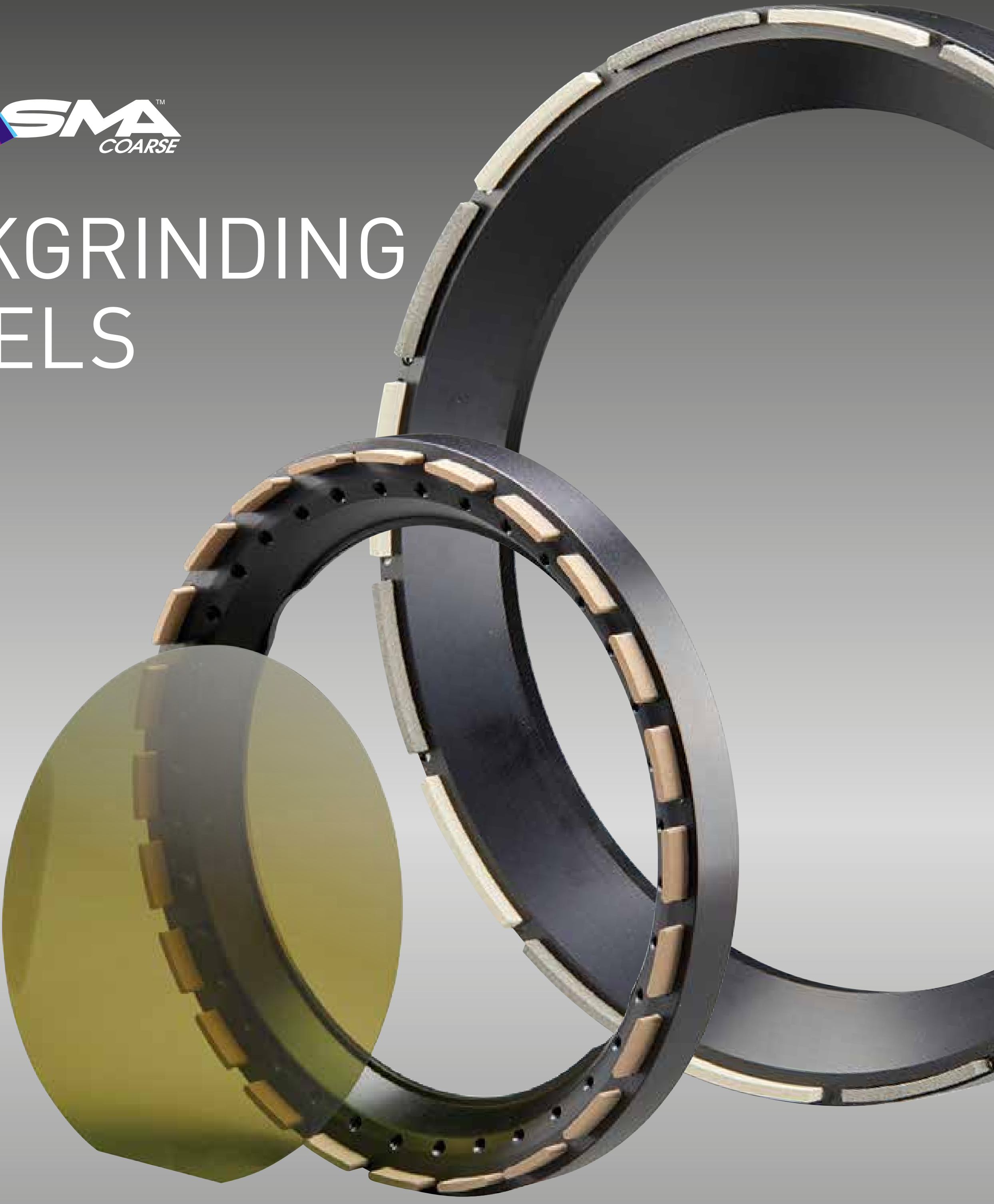
NORTON®
SAINT-GOBAIN

WINTER

Transforming
surfaces
...and beyond

PRISMA™
COARSE

BACKGRINDING WHEELS



KEY MATERIAL SEGMENTS
SILICON CARBIDE, AMBER, ALUMINA,
STRUCTURAL CERAMICS, ADVANCED CERAMICS

SAINT-GOBAIN

AGGRESSIVE ON MATERIAL REMOVAL WHILE SOFT ON FINISH

New Prisma Coarse Back Grinding Wheels (FAVS) 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.

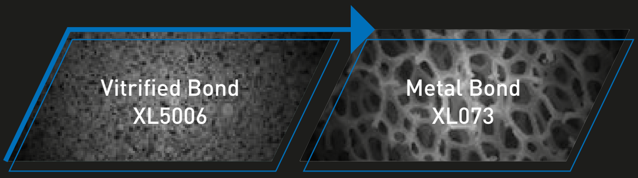
FEATURES & BENEFITS:

- 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

FROM **CUT**
TO **FINISH**

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.

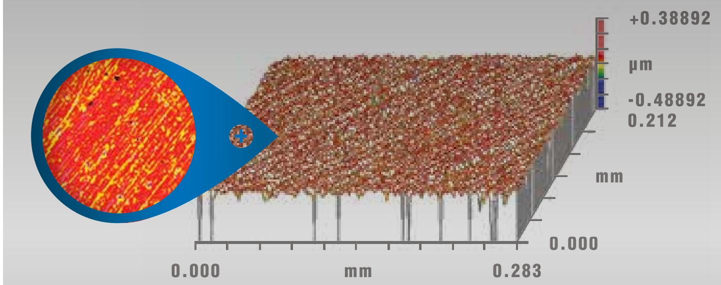


Specifications

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		**Filter High Wavelen:**	μm
Valley	-4009	A	**Trimmed:**	0		**Filter Low Wavelen:**	μm

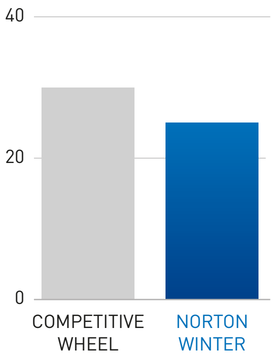
CASE STUDY - BACKGRINDING WHEELS

APPLICATION	150 mm 4H-N SiC Wafer
MACHINE	Revasum 7AF-HMG
NORTON PRODUCT	Prisma Coarse
COMPETITOR	Competitive Backgrinding Wheel

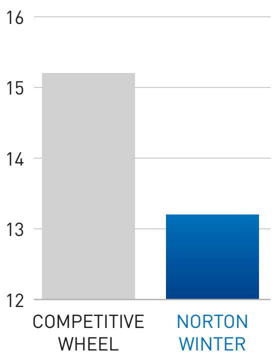
RESULTS:

- ✓ 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

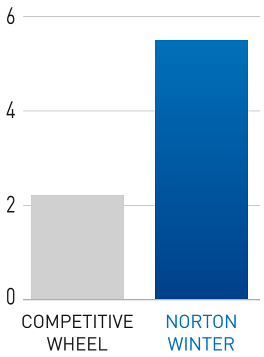
MAX GRINDING FORCE (LBF)



MAX GRINDING POWER (AMP)



G-RATIO



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