

FEATURED PRODUCTS



UPGRADED PERFORMANCE

NORTON QUANTUM (5Nq)

BEST CHOICE FOR VERSATILITY, MAXIMUM PERFORMANCE AND COST SAVINGS

FEATURES

- Revolutionary, engineered ceramic grain shape and chemistry with proven bond technology – green
- NEW! Coolest cutting, high-speed, precise form holding Vitrium 3 VS3 Bond

BENEFITS

- Versatile; for all low, medium and high force applications ranging from cast iron, to stainless steel and hard-to-grind Inconel and titanium
- Perform well on old and new machines
- 33% to 100% longer life vs. competitive ceramic products
- 30%+ higher metal removal rate
- 15%+ lower threshold power
- Lowest total grinding costs
- Highest productivity; lowest cycle and process time; most accurate finished parts



UPGRADED PERFORMANCE

NORTON SG

BEST CHOICE FOR HIGH PRODUCTIVITY, LOW TOTAL PER-PART GRINDING COST

FEATURES

- High-performance seeded gel ceramic aluminum oxide abrasive
- Self-sharpening abrasive
- High performance VS and VSP bonds
- NEW! coolest cutting, high-speed, precise form holding Vitrium 3 VS3 Bond
- Provide sharp edge on tools and dies
- 5SG – durable Norton SG and aluminum oxide blend – blue
- NORPOR 3SGR – Norton SG and 48A abrasive blend with VP2 porous bond – purple

BENEFITS

- Fast stock removal, cool, superior cutting
- 3X - 5X more life than aluminum oxide wheels
- Double rough stock removal rate versus conventional abrasives
- Less burn, less dressing; very consistent performing wheel
- Versatile; exceptional form holding
- Highest productivity; lowest cycle and process time; most accurate finished parts
- Longer life of tools and dies in production
- High stock removal rates, excellent productivity, long wheel life, low overall grinding cost
- Maximum productivity in heat-sensitive, heavy stock removal operations



NORTON 32A

BETTER CHOICE FOR MEDIUM TO HEAVY STOCK REMOVAL

FEATURES

- Sharp monocrystalline aluminum oxide grain – the industry's most versatile abrasive – purple

BENEFITS

- Free cutting on a wide range of applications and materials
- Outstanding form holding



NORTON 38A

GOOD CHOICE FOR LIGHT GRINDING OF TOOL STEELS

FEATURES

- White, friable abrasive grain
- Consistent quality
- NORPOR 38A – most friable, aluminum oxide abrasive with VP2 porous bond – white
- Versatile

BENEFITS

- Cool and burn-free cutting; ideal for heat-sensitive applications with light to moderate feed rates
- Excellent balance and dimensional accuracy time after time
- Exceptionally cool cutting in light pressure grinding applications, or heat-sensitive applications
- Ideal for use across a broad variety of tool steels



NORTON GEMINI ALUMINUM OXIDE

GOOD CHOICE FOR USE ON GENERAL PURPOSE APPLICATIONS; ECONOMICAL

FEATURES

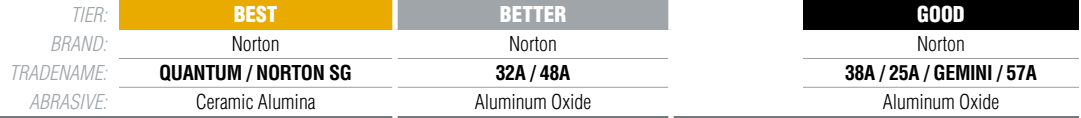
- Durable aluminum oxide abrasive and strong vitrified bond – Blue
- Versatile, economical

BENEFITS

- Consistent stock removing performance on narrow to medium contact areas; cool cutting
- Ideal when numerous small jobs are run on one machine
- The choice when initial price is the main purchasing criterion

Vitrified Wheels For Steel Applications CONTINUED

AVAILABILITY



SIZE (D x T x H)	MAX. RPM	MIN./STD. PKG.	SPEC.	PART #	SPEC.	PART #	MIN./STD. PKG.	SPEC.	PART #	
Type O1 Straight										
8 x 1/2 x 1-1/4	+	1/10	5NQ46-HVS3	66253387211	32A46-GVBEP	66253043882 B	1/10	25A46-HVP2	66253019354	
	3,105	1/10	5NQ46-IVS	69083159107	32A46-HVBE	66253043712 B	1/10	38A46-HVBE	66253043746	
	3,105	1/10	5NQ46-IVS3	66253387212	32A46-HVBE	66253288800 S	1	38A46-HVBE	66253350640 S	
	+	1/10	5NQ46-JVS	69083159108	32A46-HVBEP	66253043883 <i>†</i> B	1/10	38A46-HVBEP	66253043891 <i>†</i>	
	3,105	1/10	5NQ60-GVSP	69083159109	32A46-IVBE	66253043713 B	1/10	38A46-IVBE	66253043749	
	3,600	1/10	5NQ60-IVS3	66253387214	32A46-JVBE	66253043715 B	1/10	38A46-JVBE	66253043752	
	3,600	1/10	5NQ60-JVS	69083159110	32A46-JVBE	66253288801 S	1/10	38A46-KVBE	66253043762	
	3,600	1/10	5NQ60-JVS3	66253387213	32A46-KVBE	66253043716 B	1/10	38A60-HVBE	66253043756	
	+	1/10	3SGP46-HVSP	66253011505	32A60-FVBEP	66253043886 <i>†</i>	1/10	38A60-IVBE	66253043757	
	+	1/10	3SGP46-JVH	66253013796	32A60-GVBEP	66253043887 <i>†</i>	1/10	38A60-JVBE	66253043858	
	3,600	1/10	3SGR46-GVP2	66253019345	32A60-HVBE	66253043724	1/10	38A60-KVBE	66253043861	
	3,600	1/10	3SGR46-HVP2	66253019346	32A60-HVBEP	66253043888	1/10	38A80-IVBE	66253043866	
	3,600	1/10	3SGR60-HVP2	66253019348	32A60-IVBE	66253043725 B	1/10	38A80-JVBE	66253013787	
	+	1/10	5SG46-GVSP	66253043649	32A60-IVBE	66253288802 S	1/10	38A80-KVBE	66253043869	
	+	1/10	5SG46-HVS3	66253387220	32A60-JVBE	66253043727 B	1/10	38A100-KVBE	66253043877	
	+	1/10	5SG46-HVSP	66253043915 <i>†</i>	32A60-KVBE	66253043729 B	10/10	Gemini 46-H	66253246841	
	+	1/10	5SG46-IVS	66253044089 B	32A60-KVBE	66253288803 S	10/10	Gemini 46-I	66253246843	
	+	1/10	5SG46-IVS	66253288804 S	32A80-HVBE	66253043733	10/10	Gemini 46-J	66253246845	
	+	1/10	5SG46-IVS3	66253387221	32A80-IVBE	66253043734	10/10	Gemini 46-K	66253246848	
	+	1/10	5SG46-IVSP	66253043650	32A80-JVBE	66253043736	10/10	Gemini 60-J	66253246857	
	3,600	1/10	5SG46-JVS	66253044090 B	32A80-KVBE	66253043737				
	3,600	1/10	5SG46-JVS	66253288806 S	32A100-IVBE	66253043740				
	3,600	1/10	5SG46-KVS	66253044091	32A100-KVBE	66253043742				
	3,600	1/10	5SG60-GVSP	66253043651 <i>†</i>	48A46-HVP2	66253019350 B				
	3,600	1/10	5SG60-IVS	66253044092						
	3,600	1/10	5SG60-IVS3	66253387225						
	3,600	1/10	5SG60-IVSP	66253043652						
	3,600	1/10	5SG60-JVS	66253044093 B						
	3,600	1	5SG60-JVS	66253288808 S						
	3,600	1/10	5SG60-JVS3	66253387228						
	3,600	1/10	5SG60-KVS	66253044094						
	3,600	1/10	5SG80-JVS	66253044096						
	3,600	1/10	5SG80-KVS	66253044097						
	3,600	1/10	5SG100-KVS	66253019435						
	8 x 3/4 x 1-1/4	3,105	1/10	5NQ46-IVS	69083159111	32A46-GVBEP	66253044195	1/10	38A46-HVBE	66253044175
		+	1/10	5NQ46-JVS	69083159112	32A46-HVBE	66253044159	1/10	38A46-IVBE	66253044177
		+	1/10	5NQ60-GVSP	69083159113	32A46-HVBEP	66253044196 <i>†</i>	1/10	38A46-KVBE	66253044180
		+	1/10	5NQ60-JVS	69083159114	32A46-IVBE	66253044215	1/10	38A60-IVBE	66253044184
		+	1/10	5SG46-IVS	66253044098	32A46-JVBE	66253044161			
		3,600	1/10	3SGP46-JVH	66253013792	32A46-KVBE	66253044165			
		+	1/10	5SG46-JVS	66253044099 B	32A60-GVBEP	66253044198			
		3,600	1/10	5SG60-IVS	66253044101	32A60-HVBE	66253044168			
		3,600	1/10	5SG60-JVS	66253044102	32A60-IVBE	66253044169			
		3,600	1/10	5SG60-KVS	66253044103	32A60-JVBE	66253044171			
		3,600	1/10			32A60-KVBE	66253044173			
3,600		1/10			32A80-KVBE	66253044064				
8 x 1 x 1-1/4		+	1/10	5SG46-KVS	66253002588	32A46-HVBE	66253044616	1/10	38A46-IVBE	66253044636
		+	1/10	5SG60-GVSP	66253003228 <i>†</i>	32A46-IVBE	66253044617	1/10	38A60-IVBE	66253044456
	3,600	1/10	5SG60-IVS	66253002639	32A46-KVBE	66253044622	1/10	57A60-MVBE	66253044270	
	3,600	1/10			32A60-IVBE	66253044624				
10 x 1/4 x 3	2,485			32A60-KVBE	66253044629					
10 x 1/2 x 3	2,485	1/-			32A60-JVBE	66253149729	1/-	38A80-KVBE	66253149572	
	2,485						1/-	38A60-KVBE	66253149859	
	2,485						1/-	38A80-KVBE	66253149865	
10 x 3/4 x 3	2,485	1/-			32A46-IVBE	66253160024	1/-	38A46-JVBE	66253160158	
	2,485	1/-			32A60-IVBE	66253160137	1/-	38A60-IVBE	66253160163	
	2,485	1/-			32A60-KVBE	66253160143				
10 x 1 x 1-1/4	2,485	1/-			32A60-KVBE	66253160774				
10 x 1 x 2	2,485	1/-			32A46-IVBE	66253160749				

+ † REFER TO THE TECH TIPS ON PREVIOUS PAGE. B = BEST SELLER; PERFORMS WELL IN A VARIETY OF APPLICATIONS FOR MANY SATISFIED CUSTOMERS S = SINGLE WHEEL PACK

How to Read an Abrasive Product Specification

Conventional Grinding Wheels													
32A			46		I			8		V		BE	
ABRASIVE			GRIT SIZE			GRADE			STRUCTURE	BOND TYPE	NORTON SYMBOL		
ALUMINUM OXIDE	CERAMIC ALUMINUM OXIDE	SILICON CARBIDE	ZIRCONIA ALUMINA	COARSE	MEDIUM	FINE	SOFT	MEDIUM	HARD	RELATIVE GRAIN SPACING	Resin = B Shellac = E Plastic = P Rubber = R Vitrified = V	Designates a variation or modification to bond.	
23A	3SGP	37C	4NZ	12	30	80	D	I	Q	DENSE	2		
25A	3SGR	39C	4ZF	16	46	100	F	K	S	4	5		
32A	3SGR	Crystolon	5ZF	20	54	120	G	L	T	6	8		
32AC (blend)	5SG	Masonry	AZ (blend)	24	60	150	H	M	U	12	16		
38A	BRG		BlueFire		70	220		N	V	19	25		
48A	SG		Charger					O	Y	25	28		
53A	SXG		(blend)					P	Z	OPEN			
55A	NorZon Plus		NZ										
57A	(blend)		NZC (blend)										
U57A	NQ Quantum		NZIII										
64A	Targa		NZIV										
86A			NorZon										
90A			ZI										
Alundum FabCut India Gemini Metal Vortex													

Shelf Life and Proper Storage of Grinding Wheels

It has always been Saint-Gobain Abrasives recommendation that resinoid bonded grinding wheels be used within 2 years from the date of manufacture. This recommendation assumes that resinoid bonded grinding wheels have been stored under ideal storage conditions. It might be true that under ideal storage conditions resinoid bonded grinding wheels can survive without any degradation in strength for well over two years. However, it is always wise to suspect any wheels over two years old and have them reinspected or re-speed tested to determine if there has been any degradation in strength. If the wheels are stored under less than ideal conditions, they might have a much shorter shelf life depending upon the severity of storage conditions. These same comments also apply to rubber and shellac bonded grinding wheels.

As for vitrified grinding wheels, the shelf life is less influenced by humidity and adverse storage conditions as compared to resinoid, rubber or shellac, but even vitrified grinding wheels do not have an infinite shelf life. The best procedure and the best rule of thumb is to have any wheel that is two years old or older re-speed tested and reinspected to ensure it is fit for use. The procedure for having this done and the charges will be explained by our Customer Service Department, but the cost of shipping as well as the cost of re-inspection is the customer's responsibility. Also, any wheels rejected or otherwise lost in the re-inspection process will also be the responsibility of the customer.

Keep in mind, however, that this procedure is good to verify the reliability of a product but must not be performed until you are ready to

consume the wheel. If wheels are sent back after the two year time frame for re-inspection and re-testing and then put back on the shelf, there is no telling how long they will be fit for use after that last inspection. Therefore, these wheels must be consumed as soon as is practical.

