## 锐魔 RT 陶瓷磨料

**Receramax RT Ceramic Grains** 



技术 创新 品质 服务 RECKEL ADVANCED MATERIALS

锐魔 RT 陶瓷磨料是我司自己研发并已经申请相关专利的一款新型磨料,采用特殊的破碎方式,具有超低的堆积密度,超过85%的颗粒集中度,力求100%的颗粒高度一致性和均匀性,比普通陶瓷磨料更锋利。尖锐的棱角分明的结构,不断破裂以形成尖锐的点。

Receramax RT Ceramic Grains is a new kind grains invented by our company and we had applied for related patents. Special Crushing System to get super lower bulk density, more than 85% high concentrated grains, strive to close to 100% of the same size and Uniformity, more sharpness than conventional ceramic grain. Sharp, angular structures continuously form sharp points.



#### ► Advantage (优势):

优异的长径比,在相同的打磨密度和孔隙率下,增加了基体上的磨料厚度,并且在相同区域具有更多的压力接触点。	Excellent Length-diameter ratio, increase the thickness of abrasives on the backing under the same sanding density and porosity and more contact points in the same area.
自带重心,更容易插入基体树脂中以保持均匀植砂,并在静电植砂过程中不容易倾斜。	It has gravity, more easier to be inserted into the bottom resin to maintain a uniform setting and not prone to incline when electrostatic sanding process.
颗粒从薄到厚发展,成三维多面体,像楔形或者斧头形状,由于相似的高度,分担压力的点更多,每个点承受的压力更小,不易破碎。	The particles develop from thin to thick, three-dimensional polyhedron, like a Wdege or sunflower seed. Because of similar height, more points to share the pressure, the press on each point is more less, not easy to be broken.
这些干净,尖锐的点意味着锐魔RT磨料比传统磨料切得更快,运行温度更低,使用寿命更长,而传统磨料会产生过多的热量并缩短使用寿命,功效比普通陶瓷磨料提高50%以上。	These clean, sharp points mean Receramax RT grains that slices faster, runs cooler, and lasts much longer than conventional abrasives, which generate excessive heat buildup and have a shorter life. The efficiency is more than 50% higher than conventional ceramic grain.
节约时间,节省成本。	Saving Time, Saving Money.

#### ▶ Physical property (物理特性):

粒度号 Grit No.	RT24+ - RT400+
颜色 Colour	蓝色Blue
维氏硬度 Vickers Hardness	2100-2200(khf/mm )

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## 蓝色TG磨料

**Blue TG Grains** 



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蓝色TG陶瓷微晶刚玉是通过特种氧化铝烧结制作而成的条状磨料,具有很好的硬度及自锐性。可用于陶瓷结合剂砂轮及树脂结合剂砂轮。

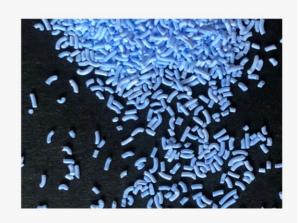
Blue TG ceramic microcrystalline abrasive grain is a strip abrasive made by sintered special alumina, which has good hardness and self-sharpness. It can be used for vitrified grinding wheel and resin bond grinding wheel.



#### ▶ Physical Properties (物理性质):

微观晶粒尺寸 Microscopic Crystal Particles	100-200 纳米 100-200 nm
形状 Shape	圆条状 Round Strip
真密度 True density	≥3.85g/cm³

高温稳定性 High Temperature Stability	1100°C
颜色 Colour	蓝色 Blue
化学成分 Chemical Analysis	氧化铝Al₂O₃: ≥97.5% 其他 Others: ≤2.5%
碎片状物料比例 Fragmentary Material Ratio	≤5%



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## 锐魔 RS陶瓷磨料

**Receramax RS Ceramic Grains** 



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锐魔RS系列陶瓷磨料目前提供P/F 16#-100#产品,主要应用在粗磨砂带、钢纸砂盘、百叶盘砂布、树脂切磨片、陶瓷砂轮等领域。由于产品晶型抗压能力增强,硬度大幅度提高,抗冲击能力的大幅度提升,更适合中高压下大进给磨削,可以大幅度提高使用寿命,同时使用效率依旧是普通磨料2倍。

Receramax RS grains is mainly used in coarse grinding belt, fiber disc, abrasive cloth for flap disc, resin bonded cutting &grinding wheels, vitrified wheels, etc. Due to the substantialenhance-



ment of the compressive strength, hardness and shock resistance, it is more suitable for greatly increasing the service life under higher pressure, and the efficiency is twice as long as that of conventional grains. Available grit number is P/F16#-100#.

#### ▶ Physical property (物理特性):

粒度号 Grit No.	P/F #16 - #100
颜色 Colour	白色 White
维氏硬度 Vickers Hardness	2100-2500(khf/mm ) <sup>2</sup>

#### ► Advantage (优势):

硬度高,晶体小,适合荒磨和重负荷磨削	High Hardness, Sub-micro crystals, situable for Roughing and Heavy duty polishing
优越的自锐性,不烧伤工件	Superior Self-sharpness, No Burning on tools
切割效率高,韧性好,磨损少	High Cutting Efficiency, Good toughness, Less Abrasion
节约时间,节省成本	Saving Time. Saving Money.

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## 锐魔陶瓷磨料

**RECERAMAX Ceramic Grains** 



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锐魔陶瓷磨料是一种以特种氧化铝为主要原料,掺入多种改性组分,通过溶胶凝胶法制造的烧结态磨料。锐魔陶瓷磨料可应用于固结磨具以及涂附磨具。该磨料应用范围非常广,既可以应用于高压力状态下的铸造打磨,又可以应用于多种材料的精磨,包括齿轮磨轴承磨、曲轴磨、轧辊磨以及其他。

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Receramax Ceramic Grains is a sintered abrasive made by a sol-gel process with a special alumina as the main raw material and mixed with various modified components.

Receramax Ceramic Grains can be used in bonded abrasives

and coated abrasives. It has a wide range of applications, not only in casting and grinding under high pressure, but also in fine grinding of various materials, including gear grinding, bearing grinding, crankshaft grinding, roll grinding and so on.

#### ▶ Physical property (物理特性):

属性	锐魔 RECERAMAX
真密度 True density	≥3.91g/cm³
颜色 Colour	蓝色Blue
维氏硬度 Vickers Hardness	2100-2200(khf/mm²)

#### ▶ Advantage (优势):

切割效率高 High Cutting Efficiency	优越的自锐性 Superior Self-sharpness
韧性好,磨损少 Good toughness, Less abrasion	成本优势 Cost advantage
使用寿命长 Longer Service Life	不烧伤工件 No Burning on tools

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## 锐魔二代陶瓷磨料

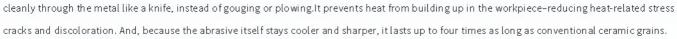
**RECERAMAX II Ceramic Grains** 

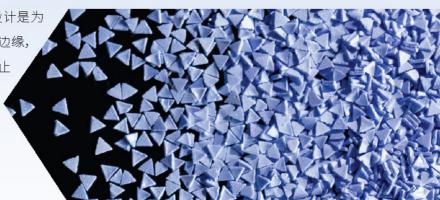


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新一代锐魔陶瓷磨料。这些自锐化三角形的设计是为了在磨损时断裂,不断形成新的,超级锋利的点和边缘,像刀一样切割金属,而不是刨削或犁削。它可以防止工件中的热量积聚——减少与热有关的应力裂纹和变色。而且,由于磨料本身保持冷却和锋利,它的持续时间是传统陶瓷颗粒的四倍。

It is new generation of RECERAMAX ceramic grain. These self-sharpening triangles are designed to fracture as they wear, continuously forming new, super-sharp points and edges that slice





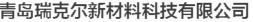
#### ▶ Product Advantage (产品优势):

- ●与目前最具竞争力的磨料相比,在难磨金属上平均切割速度 高达30%
- ●切割冷却器-将热量从工件和皮带转移到切屑上
- 有助于消除抛光和热应力
- ●持续时间是传统陶瓷颗粒的4倍
- Average up to 30% faster cutting on hard-to-grind metals than the current best competitive abrasives
- Cuts cooler- diverts heat from the workpiece and belts to the swarf
- Helps eliminate burnishing and heat stress
- Lasts up to 4 times as long as conventional ceramic grains



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## 锐魔陶瓷磨料镀铱

RECERAMAX-Coated Abrasive Grain



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作为磨料颗粒,都有几个光滑的侧面,在后续使用有机树脂作为结合剂的磨具生产前,如果采用一些表面处理工艺,将大大增强磨料颗粒的表面积,提高有机物和无机物的结合能力。经过表面处理的磨料的使用寿命比不经过处理的磨料寿命增加20-30%,主要用于树脂结合剂方面的磨具使用。

adopted. It will greatly enhance the surface area of abrasive

表面处理的磨料的使用寿命比不经过处理的磨料寿命增加20-30%, 主要用于树脂结合剂方面的磨具使用。

As abrasive grains, there are several smooth sides.
Before the subsequent production of abrasive tools using organic resin as binder, some surface treatment processes are



grains, increase the bonding area between abrasive grains and resin glue. The life will be increased around 20-30% after surface treatment on Ceramic Abrasive Grain to compare with no treatment grains, mainly used for Resin bonded abrasive tools.

#### ▶ Physical property (物理特性):

真密度 True density	≥3.91g/cm³
颜色 Colour	红色 Red
维氏硬度 Vickers Hardness	2100-2200(khf/mm²)

#### ▶ Advantage (优势):

High Cutting Efficiency 切割效率高		
Good toughness, Less abrasion 韧性好, 磨损少		
Longer Service Life 使用寿命长		
Superior self-sharpness 优越的自锐性		
Cost advantage 成本优势		
No burning on tools 不烧伤工件		



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## 锐魔白色TG磨料

**RECERAMAX-TW Ceramic Grain** 



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锐魔白色TG陶瓷微晶刚玉是通过特种氧化铝烧结制作而成的条状磨料,具有很好的硬度及自锐性。可用于陶瓷结合剂砂轮及树脂结合剂砂轮。

RECERAMAX-TW ceramic microcrystalline abrasive grain is a strip abrasive made by sintered special alumina,



which has good hardness and self-sharpness. It can be used for vitrified grinding wheel and resin bond grinding wheel.

#### ▶ Physical Property (物理性质):

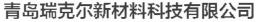
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微观晶粒尺寸 Microscopic Crystal Particles	100-200 纳米 100-200 nm
形状 Shape	圆条状 Round Strip
真密度 True density	≥3.85g/cm³

高温稳定性	1100°C
High Temperature Stability	
颜色 Colour	白色 White
化学成分	氧化铝Al <sub>2</sub> O <sub>3</sub> :≥97.5%
Chemical Analysis	其他 Others: ≤2.5%
碎片状物料比例	
Fragmentary Material Ratio	≤5%



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# 产品应用 Application



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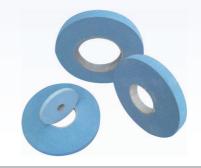
砂带 Sanding Belt ▶

◀ 百叶盘 Flap Disc









▲ 钢纸磨片 Fiber Disc



陶瓷砂轮

Vitrified Grinding Wheels

◀ 砂碟Sanding Disc



树脂砂轮 ▶ Resin Bonded Grinding Wheels



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