



## **BCA-ROD Abrasive Grains**

Precision-shaped ceramic grains  
for unequalled stock removal rates

## Tyrolit BCA-ROD Abrasive Grains

With BCA-ROD, Tyrolit defines a new performance level for rod-shaped ceramic grains. Selected, high-quality raw materials and a carefully optimized production process result in a grain with significantly improved grinding properties. Unique self-sharpening properties in combination with high durability (long wheel life) enable unrivaled stock removal rates and help in the creation of highly optimized grinding processes.

### Physical properties

Colour	Hardness	Specific density	Type
Blue	19 – 21 GPa	>3.86 g/cm <sup>3</sup>	Non-seeded sol-gel

### Chemical composition

	Al <sub>2</sub> O <sub>3</sub>	MgO	Y <sub>2</sub> O <sub>3</sub>	La <sub>2</sub> O <sub>3</sub>	CoO	Traces
in %	94 – 96	0.8 – 1.8	0.6 – 1.6	2.2 – 3.2	< 0.2	SiO <sub>2</sub> , Fe <sub>2</sub> O <sub>3</sub> , TiO <sub>2</sub> , CaO

### Applications:

BCA-ROD is a precision-shaped grain particularly suitable for applications where a high removal rate is required, such as gear grinding or creep feed grinding of airfoils. It shows its benefits especially when grinding difficult materials such as titanium and nickel alloys. In addition, BCA-ROD significantly reduces the diamond dressing tool consumption in comparison to competing grains.

Grit	Bulk density		Diameter µm	Aspect ratio	Coarse fraction
	Min.	Max. g/cm <sup>3</sup>			
S60	1.80	2.10	200 – 300	2.8 – 4.0	0-5%
S90	1.75	2.05	170 – 220	3.0 – 4.2	0-5%
S120	1.70	2.00	135 – 185	3.0 – 4.4	0-5%



Precision-shaped grains for high stock removal applications