

## CA-PL Abrasive Grains

Platelet-shaped ceramic grains designed for ultimate performance

# Tyrolit CA-PL Abrasive Grains

CA-PL is a seeded abrasive grain with a very fine crystal structure composed of submicron crystalline alpha alumina, magnesium alumina spinel and tetragonal zirconia. Introducing a breakthrough in abrasive technology: a platelet-shaped grain produced through a specialized manufacturing method. Its distinctive shape provides enhanced grinding capabilities across numerous applications, outperforming traditional ceramic abrasive grains. With their precise grain edges, these grains grind faster, generate less heat and have significant longer life than traditional ceramic abrasive grains.

## Physical properties

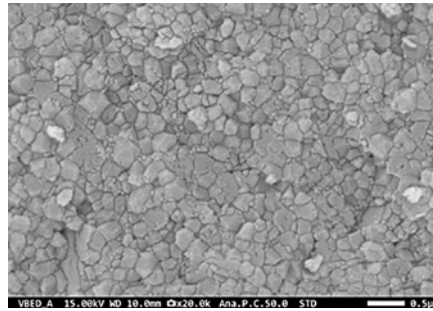
Colour	Hardness	Specific density	Type
White	23 GPa	> 3.88 g/cm <sup>3</sup>	Seeded sol-gel

## Chemical composition

	Al <sub>2</sub> O <sub>3</sub>	ZrO <sub>2</sub>	MgO	Traces
In %	> 95.0	1 - 3	< 2.0	SiO <sub>2</sub> , Fe <sub>2</sub> O <sub>3</sub> , CaO, HfO <sub>2</sub>

## Applications:

CA-PL is suitable for high performance applications in bonded and coated abrasives. Typical applications include roll grinding, spring grinding, high performance cut-off and snagging wheels and robotic and cylindrical grinding (belts and fiber discs).



CA-PL has a very fine crystal structure



Platelets with sharp edges

## Sieving (modified) and bulk density of CA-PL grains

Grit size	Sieving							Bulk density (g/cm <sup>3</sup> )
	Sieve 1	Sieve 2	Sieve 3	Sieve 4	Sieve 5	Pan		
24+	Sieve No.	14	16	18	20	25	--	1.50 – 1.70
	Residue %	0	< 10	< 21	≥44	≥64*	< 5	
36+	Sieve No.	18	20	25	30	35	--	1.55 – 1.75
	Residue %	0	< 10	≥45	≥65**	< 20	< 5	
46+	Sieve No.	20	25	30	35	40	--	1.65 – 1.85
	Residue %	0	< 10	≥45	≥65**	< 20	< 5	
60+	Sieve No.	30	35	45	60	120	--	1.70 – 1.90
	Residue %	0	< 10	≥45	≥65**	< 20	< 5	
80+	Sieve No.	40	60	80	100	120	--	1.75 – 1.95
	Residue %	0	< 12	≥44	≥59**	< 20	< 5	
120+	Sieve No.	80	100	120	140	170	--	1.75 – 1.95
	Residue %	0	< 12	≥44	≥59**	< 20	< 5	

Notice: \* sum of materials from the 4th and 5th sieve. \*\* sum of material from the 3th and 4th sieve