

# Specialities

## Specialities ceramic feedstocks

Ceramic Powder		Particle size $d_{50}$	Specific surface area	Density possible	Sintering temperature	Atmosphere
Alumina	$\text{Al}_2\text{O}_3$ , 99,99 %	0,16 $\mu\text{m}$	13-16 $\text{m}^2/\text{g}$	> 3,97 $\text{g}/\text{cm}^3$	1.350 °C	in air
Alumina-toughened Zirconia	ATZ 20/80	0,026 $\mu\text{m}$	15 $\text{m}^2/\text{g}$	5,5 $\text{g}/\text{cm}^3$	1.450 °C	in air
Zirconia-toughened Alumina	ZTA 20/80	0,12-0,18 $\mu\text{m}$	1,0-1,5 $\mu\text{m}$	3,92 $\text{g}/\text{cm}^3$	1.680 °C	in air
Alumina-toughened Zirconia	ATZ 20/80	0,4 $\mu\text{m}$	7,0 $\text{m}^2/\text{g}$	$\geq 5,51 \text{ g}/\text{cm}^3$	1.525 °C	in air
Zirconia-toughened Alumina	ZTA 10/90	0,35-0,55 $\mu\text{m}$	7,0-8,5 $\text{m}^2/\text{g}$	> 4,15 $\text{g}/\text{cm}^3$	1.550 °C	in air

Silicon Nitride	$\text{Si}_3\text{N}_4$	ca. 0,7 $\mu\text{m}$	9-13 $\text{m}^2/\text{g}$	3,44 $\text{g}/\text{cm}^3$	1.750 – 1.780 °C	Vacuum/ Protective gas
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All powders are available as feedstocks with the three binder systems:

INMAFEED  
INMAFLOW  
INMAPOM

**INMATEC**

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