

## Semi-finished products made of oxide ceramics!

An extremely wear resistant and tough material from Metoxit



**We have a *large stock range* of semi-finished products made of oxide ceramics, an extremely wear resistant and tough ceramic.**

We offer a goods delivery service within 2-3 days or preferred Express Service. An individual material technical advice is also included.

On offer we have **isostatic pressed** and **preground** round rods made of high quality materials such as **ZrO<sub>2</sub>-TZP, ZrO<sub>2</sub>-ATZ-HIP, Al<sub>2</sub>O<sub>3</sub> Al 998** in diameters ranging from Ø 1 - 10 with lengths 50-100 mm. The corresponding article numbers can be found on the backside.

Customized ground rods, special prototypes, even with larger dimensions up to Ø 80 x 310 mm can also be offered on request. This includes even our materials **ZrO<sub>2</sub>-PSZ, ZrO<sub>2</sub>-FSZ and Al<sub>2</sub>O<sub>3</sub> Al 999**.

**We look forward to your order!**

#### Typical applications:

Process, instrumentation, drives-, electrical-, analytical-, automation-, off-shore, automotive-, chemical-, metal technology.

#### Properties:

- High wear resistance
- Chemical resistance
- High application temperatures
- Perfect electrical insulation
- Low coefficient of expansion
- Biochemical inert

[www.metoxit.com](http://www.metoxit.com)

The Swiss Pioneer of Dental Zirconia

**SWISS MADE**

**Proven millions of times!**  
If only the best is good enough

## Available are the following dimensions

Diameter (mm)	Length (mm)	Al 998	TZP	ATZ	ZTA
1	50	409254	409267	409281	409293
2	50	409255	409268	409282	409294
3	50	409256	409269	409283	409295
4	50	409257	409270	409284	409296
5	100	409258	409271	409285	409297
6	100	409259	409272	409286	409298
7	100	409260	409273	409287	409299
8	100	409261	409274	409288	409300
9	100	409262	409275	409289	409301
10	100	409263	409276	409290	409302
20	310	409264	409277	409291	409303
22	310	409265	409278	409292	409304

Standard tolerances:  
Diameter + 0.1-0 mm  
Length + 1-0 mm

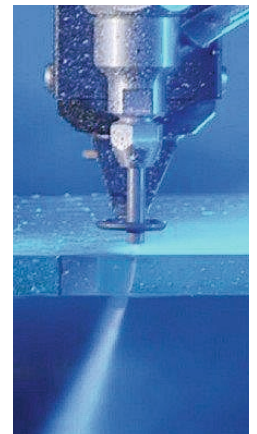
Standard surface finish:  
Ra 1.6 µm

On request, we also offer  
high-precision diameter  
and/or polished surfaces.

Minimum order value CHF 250,-- **40...** Available from stock, subject to prior sale **40...** On demand

## Materials and Typical Applications

Material	Trade	Properties	Typical Applications
Aluminiumoxid 99.8% Al <sub>2</sub> O <sub>3</sub>	Al 998	pure Al <sub>2</sub> O <sub>3</sub> , very fine grain size, extremely good resistance against wear, very high electrical insulating properties, microwave transparency	Shafts and axles for drive technology, piston and plungers for high pressure pumps, support vessels for analytical technology
Aluminiumoxid 80% Al <sub>2</sub> O <sub>3</sub> + 20% ZrO <sub>2</sub>	ZTA	Al <sub>2</sub> O <sub>3</sub> toughened with ZrO <sub>2</sub> , higher strength than Al <sub>2</sub> O <sub>3</sub> , good resistance to thermal shock, excellent tribological properties, perfect resistance against wear and corrosion, biocompatible	Shafts and axles for linear actuators, piston and plunger for dosing units, bushing and valves components, positioning pins for automotive industry
Zirkonoxid 80% ZrO <sub>2</sub> + 20% Al <sub>2</sub> O <sub>3</sub>	ATZ	Al <sub>2</sub> O <sub>3</sub> toughened with ZrO <sub>2</sub> , excellent mechanical and tribological properties, highest surface qualities realizable, very good thermal shock resistance biocompatible	Forming tool for metals, High pressure piston for water jet cutting, draw beads for welding processes, coloured watch parts, milling and drilling tools
Zirkonoxid 95% ZrO <sub>2</sub> + 5% Y <sub>2</sub> O <sub>3</sub>	TZP	Y <sub>2</sub> O <sub>3</sub> - stabilized tetragonally zirconia, very fine grain size, highest breaking strength and wear resistance, biocompatible, highest surface qualities realizable, best edge stability	Nozzle and cutting units, piston and plunger for dosing units, shafts and axles for linear actuators, coloured watch parts, parts for jewellery, welding pins for body shell production



These data correspond to the present state of our knowledge concerning properties and applications. They do not guarantee certain properties for products designed for specific applications utilizing materials described. Any industrial property rights should be considered. Our quality assurance is formulated in the General Conditions of Sale.

Look under <http://www.metoxit.ch/avl/metoxit-1d-1-10avl.pdf>

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