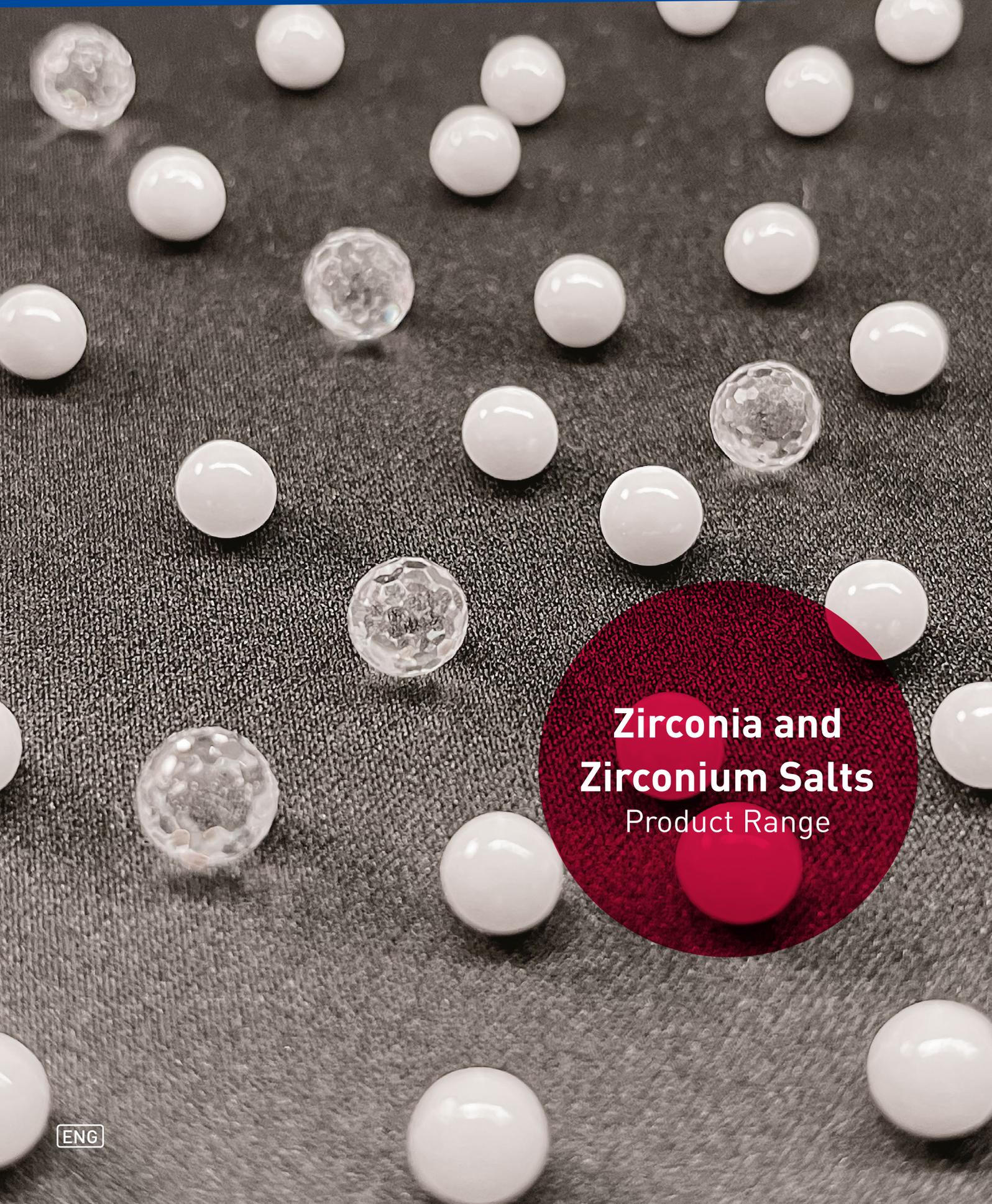


Experts for high-performance chemical and mineral specialties. Since 1894.



**Zirconia and
Zirconium Salts**
Product Range

LUVOZIRC® LUVOBEBADS®

- Broad range of zirconium compounds
- Long-term partnerships with qualified manufacturers across the globe
- Wide range of customized specialities and delivery forms
- Highly qualified technical and commercial support

Product Applications

Our zirconium-based products can be used in numerous applications such as glass and ceramics, catalysts, dental, magnets, surface coatings, metallurgy, batteries and electronics.



LUVOZIRC® Zirconium Dioxide (ZrO₂)

Grade	Type	Purity ZrO ₂	BET surface area (m ² /g)	Particle size d ₅₀ (µm)
A1	Chemically precipitated	99.5 – 99.99 %		0.2 – 0.3
Z3	Chemically precipitated	99.5 – 99.99 %	2 – 4	4 – 30
Z5	Chemically precipitated	99.5 – 99.99 %	3 – 7	4 – 30
Z8	Chemically precipitated	99.5 – 99.99 %	5 – 10	4 – 30
Z12	Chemically precipitated	99.5 – 99.99 %	11 – 15	4 – 30
Z15	Chemically precipitated	99.5 – 99.99 %	13 – 20	4 – 30
Z20	Chemically precipitated	99.5 – 99.99 %	20 – 25	< 1
Z50	Chemically precipitated	99.5 – 99.99 %	45 – 55	< 1
DZ	Chemically precipitated	99.5 – 99.99 %	4 – 10	3 – 5
Nano	Chemically precipitated	99.5 – 99.99 %		< 0.05
Nano sol	Chemically precipitated	> 99.95 %		< 0.02
FZ1	Fused	> 98,5 %	< 1	13 – 18
FZ3	Fused	> 98,5 %	2 – 4	1 – 2

LUVOZIRC® Stabilized Zirconium Dioxide (ZrO₂)

Grade	Type	Purity ZrO ₂	Balance (non-ZrO ₂ content)	BET surf. area (m ² /g)	Particle size d ₅₀ (µm)
ZTA	Alumina toughened	20 %	80 % Al ₂ O ₃	10 – 20	< 10
CASZ	Calcium stabilized	> 94.5 %	4.5 – 5.5 % CaO		12 – 13
CASZ P1	Calcium stabilized	> 94.0%	3.5 – 4.2 % CaO		1 – 10
CASZ P2	Calcium stabilized	> 95.0 %	3.0 – 4.2 % CaO		1 – 10
CASZ P3	Calcium stabilized	> 91.0 %	7.0 – 7.8 % CaO		1 – 10
MGSZ	Magnesia stabilized	> 94.5 %	4.5 – 5.5 % MgO		1 – 10
YSZ 3mol	Yttria stabilized	> 94.0%	5.15 – 5.50 % Y ₂ O ₃	6 – 10 / 12 – 18	0.4 – 0.7
YSZ 4mol	Yttria stabilized	> 92.0 %	7.0 – 7.6 % Y ₂ O ₃	6 – 10 / 12 – 18	0.4 – 0.7
YSZ 6mol	Yttria stabilized	> 89.0 %	10.2 – 11.0 % Y ₂ O ₃	6 – 10 / 12 – 18	0.4 – 0.7
YSZ 8mol	Yttria stabilized	> 86.0 %	13.1 – 14.0 % Y ₂ O ₃	6 – 10 / 12 – 18	0.4 – 0.7
YSZ nano	Yttria stabilized	> 94.0 %	5.15 – 15 % Y ₂ O ₃		0.01 – 0.03
YSZ nano sol	Yttria stabilized	> 94.0 %	5.15 – 5.35 % Y ₂ O ₃		0.01 – 0.03

Zirconia can also be stabilized with other chemical elements such as cerium (Ce), scandium (Sc), vanadium (V), niobium (Nb) or titanium (Ti). Customized zirconium compounds are available upon request.

LUVOZIRC® Zirconium Salt

Grade	Salt	ZrO ₂ Equivalent content	Powder	Solution	Particle size d ₅₀ (µm)	Remarks
AZCS	Ammonium Zr carbonate	20 %	●	●	20 – 40	
PZCS	Potassium Zr carbonate	10 % / 20 %	●	●	20 – 40	Powder 55 %
ZAS	Zr acetate	20 % / 25 % / 30 %	●	●	20 – 40	Powder 60 %
ZAS HP	Zr acetate	20 % / 25 % / 30 %		●	20 – 40	High purity
ZBC	Zr basic carbonate	40 %	●	●	20 – 40	
ZBC HP	Zr basic carbonate	40 %	●	●	20 – 40	High purity
ZNS	Zr nitrate	20 % / 25 % / 30 %	●	●		
ZOC	Zr oxy-chloride	36 %	●	●		
ZOH	Zr hydroxide	40 % / 50 % / 75 % / 85 %	●	●	20 – 40	Sulphur free
ZBS	Zr basic sulfate	40 %	●		30 – 50	
ZP	Zr phosphate	35 % / 55 %	●		20 – 50	

LUVOZIRC® Zirconium Silicate

Name	ZrO ₂ (+HfO ₂) (%)	SiO ₂ (%)	PSD (µm)	Bulk Density (g/cm ³)
ZRS-1	64.0	34.0	d50: 1.0	0.8
ZRS-5	64.2	33.8	d50: 1.5	0.8
ZRS-200	66.00	33.00	200 mesh: > 95%	2.7
ZRS-325	66.00	33.00	325 mesh: > 95%	2.7
ZRS-D	65.00	33.00	d50: 120 40 mesh: < 80%	2.7

LUVOBEADS® Zirconia and Alumina Grinding Beads

Grade	Type	Purity	Available in different bead sizes between (mm)
YZB	Yttria stabilized zirconia	94% ZrO ₂	0.1 – 50
CZB	Cerium stabilized zirconia (yellow)	80% ZrO ₂	0.3– 3.0
CZB	Cerium stabilized zirconia (black)	85% ZrO ₂	0.4 – 3.2
AB	Alumina	> 92% Al ₂ O ₃	0.2 – 100

Further available beads compositions: zirconium silicate and alumina, zirconium oxide and alumina, zirconium silicate, alumina and silicon oxide.

Quality

Our zirconium products always contain max. 2 % of the respective hafnium compound. Certified according to ISO 9001 and ISO 14001.

Packaging and Logistics

We offer a wide range of packaging solutions; please contact us for individual needs. Our numerous warehousing and logistics operators are audited and certified by applicable standards.



Talk to our experts.

Scan the code for contact details.
<https://www.lehvoss-auer-remy.de>

Lehmann&Voss&Co. KG
Alsterufer 19
20354 Hamburg
Germany
Tel +49 40 44197 – 181
Email industrialminerals@lehvoss.de
www.lehvoss-magnesia.com



www.lehvoss.com

Any recommendations made for use of the Seller's materials are made to the best of the Seller's knowledge and are based upon prior tests and experience of the Seller believed reliable; however, the Seller does not guarantee the results to be obtained and all such recommendations are non-binding, including with regard to the protection of third-party rights, do not constitute a commitment and do not affect in any way the Buyer's obligation to examine and/or test the Seller's goods with regard to their suitability for the Buyer's purpose. No information given by the Seller is to be construed in any way as a guarantee regarding characteristics or duration of use, unless such information has been explicitly given as a guarantee.

