

Liner: Ceramic

Ceramic, Zirconium Oxide (ZrO₂) – Aluminium Oxide (Al₂O₃)



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The two Ceramic liners both have excellent properties for a broad range of process industry applications. They demonstrate a wide range of applicability due to their resistance to high temperatures, low pressures and corrosion. Ceramic is also usable in food and beverage applications, but needs cautions for sudden temperature shocks.

About Ceramic

Ceramic Zirconium Oxide (>96.0% ZrO₂; 3.1-3.3% MgO)

Zirconium Oxide is a versatile advanced ceramic material. It has excellent chemical resistance to acids and alkalis. It has no thermal shock limitations. Ceramic Zirconium Oxide is used for flowmeter sizes DN 2 (1/12") and DN 3 (1/8").

Ceramic Aluminium Oxide (Al₂O₃) (99.7% Al₂O₃; 0.3% MgO)

Aluminium Oxide is a high purity aluminium oxide ceramic. It resists both acids and alkalis. For flowmeters sized above DN 50 the liner can be sensitive to sudden thermal shocks. This ceramic is best suited to lining flowmeters of small diameter in high accuracy applications.

Ceramic facts and features

- The liners with the best possible long-term accuracy
- Withstands high temperatures, corrosion and wear
- Chemically inert in the presence of most substances, even at elevated temperatures
- High temperature resistance
- Totally vacuum resistant.

Application	Capability
Drinking Water	
Wastewater	
Abrasive Liquids	✓
Chemicals	✓✓
Food & Beverage	✓✓✓
Pulp & Paper	

Acid Resistance	Capability
Diluted	✓✓
Concentrated	✓

Wear Resistance	Performance
Abrasion	✓✓

Products	Nominal size	Medium temperature range	Operating pressure	Drinking water or hygienic approvals
MAG 1100	DN 2...DN 100 (1/12"...4")	-20/+150°C (-4/+300°F)	DN 2...65: 40 bar (1/12"...2 1/2": 580 psi) DN 80: 37.5 bar (3": 540 psi) DN 100: 30 bar (4": 435 psi)	
MAG 1100 HT	DN 15...DN 100 (1/2"...4")	-20/+200°C (-4/+390°F)	DN 15...50: 40 bar (1/2"...2": 580 psi) DN 80: 37.5 bar (3": 540 psi) DN 100: 30 bar (4": 435 psi)	
MAG 1100 F	DN 10...DN 100 (3/8"...4")	-20/+150°C (-4/+300°F)	DN 10...65: 40 bar (3/8"...2 1/2": 580 psi) DN 80: 37.5 bar (3": 540 psi) DN 100: 30 bar (4": 435 psi)	Hygienic