



# New Level of Silicon Nitride Powder for Ceramics



alzchem  
group

# Production Process of Silzot®

Direct reaction between silicon and nitrogen at high temperatures without any use of catalysts and only dry production steps:



## Silzot® Powder Grades



- High Quality Grade Powder
- Since more than 30 years
- Silzot® HQ finer grade, also available with d98 <3µm

Characteristics	Typical Values
N-content	> 38.7%
O-content	< 0.6%
α-content	> 86%
Al	< 0.07%
Fe	< 0.03%
Ca	< 0.03%
<b>Particle Size</b>	
d98	< 10µm
d90	< 5µm
d50	< 1.9µm

## Silzot® Processed Grades

**Silzot® HQ <3µm + Sintering Additives + Organic Additives**



- Spray dried Silzot® HQ < 3 µm powder with sintering additives and organic binder
- Ready to Press granules with excellent flowability and pressability



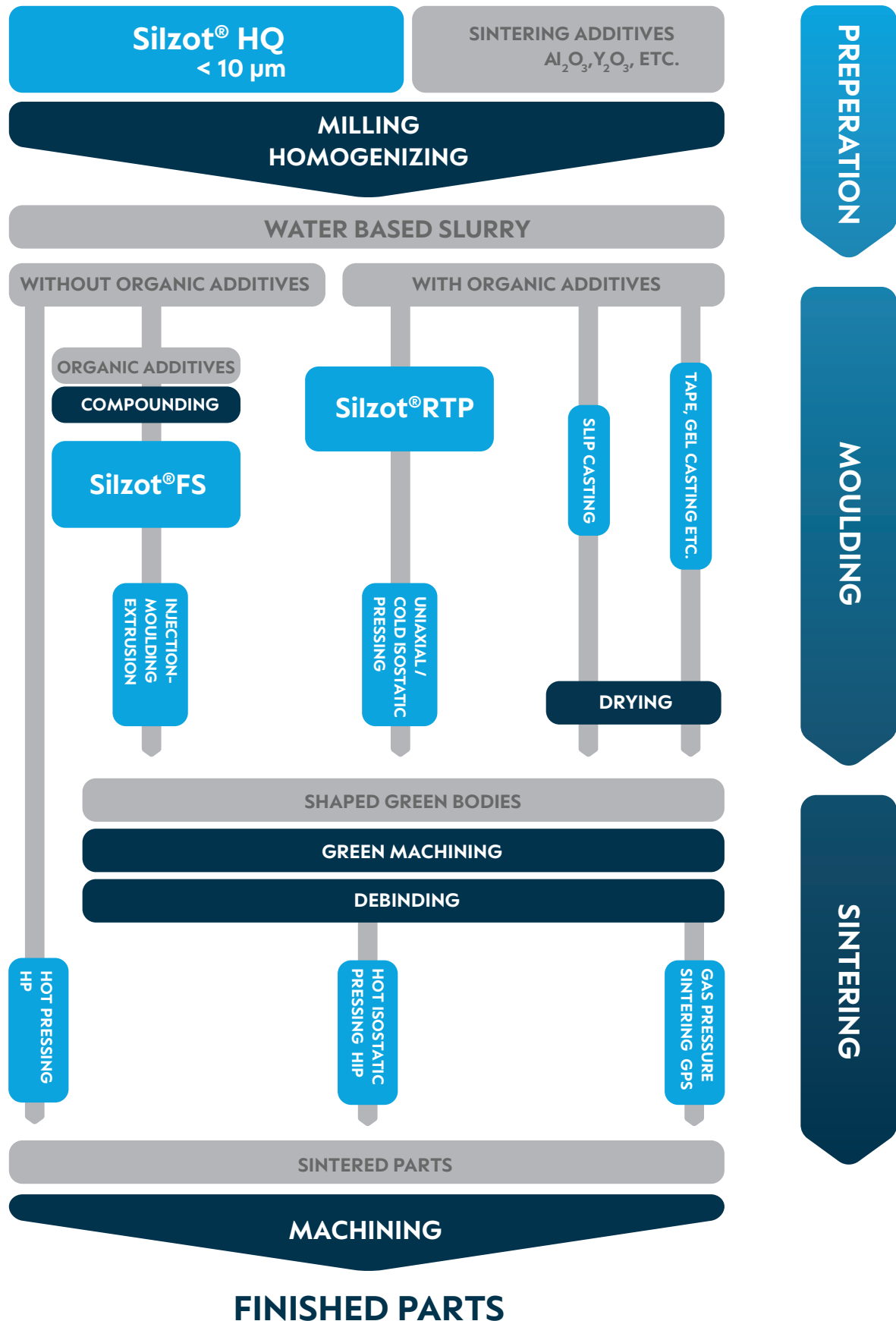
- Compounded and pelletized Silzot® HQ <3µm powder with sintering additives and organic binder
- Ready-to-Use Feedstock for injection moulding

## Silzot® Enables E-Mobility



High performance silicon nitride ceramics based on Silzot® are essential to meet the increasing demands on materials for e-mobility and renewable electrification: e.g. substrates for power electronics, ball bearings, structural parts, etc.

# Silzot® – Usage in the Production of SiN-based Materials







## Your Benefits

- High quality raw materials and unique production technology used
- Only sustainable, ecological friendly and dry production steps; No wet purification steps needed (no acids)
- Very precise and controlled reaction conditions allow a constant high quality with a very tight specification
- Low oxygen content and low metal impurity levels for improved thermal conductivity in ceramics
- European supply chain and made in Germany



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