

Product data sheet

Fused Silica Fusireps FS-99

Elkem ASA Silicon Products
 Drammensveien 169 P.O. Box 334
 Skøyen NO-0213 OSLO
 Tel: +47 22 45 01 00
www.elkem.com

Description Fused silica FS-99 is obtained by melting a high purity form of silica by electrical fusion and cooling the melt sufficiently fast to avoid crystallization (amorphous Silica). Afterwards it is classified in different grades.

Applications Fused Silica FS-99 is mainly used in foundry, refractory, ceramic, investment casting and in other special applications.

- Benefits**
- Consistent chemistry, (minimal impurities, providing excellent hot strength)
 - Excellent volume stability, ensuing near net shape castings
 - Low thermal conductivity.
 - Total absence of cristobalite
 - Extremely low coefficient of thermal expansion
 - Controlled particle size distribution

Chemical analysis & physical data

| <i>Weight%</i> | <i>Spec* (coarse)</i> | | |
|-----------------------------------|-----------------------|----------------|----------------|
| | <i>Grade A</i> | <i>Grade B</i> | <i>Grade C</i> |
| SiO ₂ | min. 99,9% | min. 99,8% | min. 99,5% |
| Al ₂ O ₃ ** | max. 0,02% | max. 0,02% | max. 0,08% |
| Fe ₂ O ₃ | max. 0,01% | max. 0,02% | max. 0,06% |
| TiO ₂ | max. 0,01% | max. 0,01% | max. 0,02% |
| CaO | max. 0,01% | max. 0,01% | max. 0,06% |
| MgO | max. 0,01% | max. 0,02% | max. 0,02% |
| Cristobalite - SiO ₂ | Free | max. 0,01% | max. 0,05% |

Specific Gravity: 2200 Kg/cm³
 Softening Point: 1650°C approx..
 Melting Point: 1750°C approx..

* Test methods are available upon request
 ** The finer the powder, the higher content of Alumina

- Sizes**
- | | | | |
|-------------------|------------|----------------|---------------------|
| • - 4 + 10 mesh | • 5 - 8 mm | • 1 - 2 mm | • 0 - 0,2 mm |
| • - 10 + 20 mesh | • 3 - 5 mm | • 0,5 - 1 mm | • DIN 70 (170 mesh) |
| • - 20 + 50 mesh | • 2 - 5 mm | • 0,2 - 0,5 mm | • 0 - 75 micron |
| • - 50 + 100 mesh | • 1 - 3 mm | • 0,1 - 0,2 mm | • 0 - 45 micron |

Other customised chemistry and sizing can be produced on request.

Packaging The product is available in 25 kg small bags, and various sized big bags. Please contact our sales representative for more details.

- Storage and handling**
- Avoid dust generation
 - Store material properly, protected from moisture and contamination

Health, safety & environment Please consult our Product Safety information on our website:
[| Elkem Silicon Products | Elkem.com](http://Elkem Silicon Products | Elkem.com)

Sustainability For Elkem, sustainability is central to our business strategy. Our mission is to provide advanced material solutions shaping a better and more sustainable future, adding value to our stakeholders globally. We are committed to reduction in embodied carbon emission. For further information, please visit www.elkem.com/sustainability/ or contact us to learn more about our sustainability roadmap.

Additional information and contact For further information, please contact our local sales representative. Our specialists will assist you in solving individual problems.