

Silit® SK Thermocouple Protection Tubes

PRODUCT INFORMATION

Silit® SK is Siliconized Silicon Carbide (SiSiC) ceramic. Thermocouple Protection Tubes made of Silit® SK can be used up to 1350 °C. Compared to Nitride bonded or Recrystallized SiC, Silit® SK is a denser product, with minimal gas permeability.

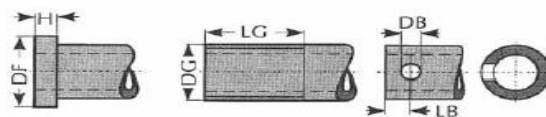
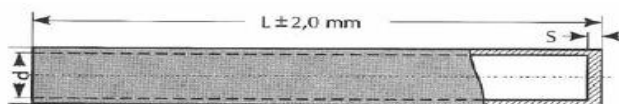
PROPERTIES

- High resistance to oxidation
- High thermal shock resistance
- High strength and stability of shape to maximum application temperature

| Tube diameter | | Flange diameter DF +/- 2,0 mm | Tolerance X mm | Standard length L ± 2 mm |
|--------------------|-------|----------------------------------|----------------|-----------------------------|
| OD ±Tolerance X mm | ID mm | | | |
| 20 | 11 | 40 | ± 0.35 | 200 - 2000 |
| 25 | 15 | 45 | ± 0.40 | 250 - 1500 |
| 30 | 19 | 55 | ± 0.45 | 300 - 1750 |
| 34 | 22 | 55 | ± 0.50 | 400 - 1750 |
| 38 | 26 | 60 | ± 0.55 | 400 - 2000 |
| 40 | 28 | 60 | ± 0.55 | 500 - 2000 |
| 51 | 36 | 80 | ± 0.70 | 500 - 2000 |
| 55 | 42 | 80 | ± 0.90 | 500 - 2000 |

* Technical data, right of modification reserved

Standard dimensions and tolerances of Silit® SK T-Tubes*



Standard connections at end of tube (flange, round thread, drill) of Silit® SK T-Tubes:

| | |
|------------------|-----------------------------------|
| Flange thickness | 10 mm |
| Bottom thickness | 12 mm |
| Round thread | Outer diameter mm x 1/6 (inch) |
| Length of thread | 30 mm |
| Drill | Ø 4-15 +/- 0.5 mm, as required |

Standard deviation MD of Silit® SK T-Tubes:

| Length | MD |
|-----------|--------|
| ≤ 1200 mm | ≤ 5 mm |
| > 1200mm | ≤ 7 mm |

Divergent diameters and lengths can be manufactured on request also. The design must be appropriated to the material and production process.

Silit® SK

Thermocouple Protection Tubes

MATERIAL PROPERTIES: Silit® SK

| Properties | | | Unit | Value |
|---|-----------|-----------------------|---------------------|-------|
| Main components | SiC | | % | 85 |
| | Si | | % | 15 |
| Maximum application temperature ¹⁾ | | | °C | 1380 |
| Bulk density | EN 993-1 | | kg/dm ³ | 3.0 |
| Apparent porosity | EN 993-1 | | Vol. % | 0 |
| Young's modulus | EN 843-2 | RT ²⁾ | GPa | 340 |
| Modulus of rupture | EN 993-6 | RT ²⁾ | MPa | 260 |
| | EN 993-7 | 1200°C | MPa | 260 |
| Coefficient of thermal expansion | EN 993-10 | α RT...1300 °C | 10 ⁻⁶ /K | 4.5 |
| Thermal conductivity | EN 993-15 | 1000 °C | W/(m*K) | 35 |

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Signs and symbols:

¹⁾ Dependent on the corresponding operating conditions

²⁾ Ambient temperature

Saint-Gobain IndustrieKeramik Rödental GmbH
 Oeslauer Str. 35, 96472 Rödental • Germany
 Phone: +49 9563 724 307 • ceramicsrefractories@saint-gobain.com

www.ceramicsrefractories.saint-gobain.com

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PERFORMANCE CERAMICS & REFRACTORIES

