# VitroSilK®Loft

Loose high-silica glass fiber (chopped continuous filament) for packing and blowing, not fused quartz and not quartz

Interim version, nominal values of the specification. The absence of alkali and alkaline earth oxides ($Na_2O$, $K_2O$, CaO, MgO, BaO) is confirmed for every delivery by an exclusion certificate "basic oxides".

## Description

VitroSilK®Loft is a loose chopped fiber of continuous filaments of amorphous silicate glass with a high $SiO_2$ content and a nominal fiber diameter of 6 to 9 µm. The glass is amorphous; it is neither fused quartz nor quartz, and it contains no crystalline $SiO_2$ as delivered. VitroSilK®Loft is used as packed or blown insulation, among other things as the fill of the box design of VitroSilK®Cover, with a packing density of 120 to 140 kg/m³.

VitroSilK® contains no basic oxides and therefore makes no contribution to the thermochemical formation of calcium or sodium chromate on chromium-alloyed hot parts.

The temperature resistance of the fiber is approximately 1000 °C. For continuous service we recommend an application temperature of up to 750 °C. This is intended to prevent the formation of cristobalite, which has so far been neither demonstrated nor investigated for VitroSilK®, but which cannot be ruled out under prolonged exposure to higher temperatures.

## Technical data

| Property | Metric | US | Test method |
|---|---|---|---|
| **Fiber and composition** | | | |
| Fiber type | amorphous chopped fiber of continuous silicate glass filament not fused quartz, not quartz | | |
| Fiber diameter, nominal | 6 – 9 µm | 236 – 354 µin | nominal value |
| Chopped length [1)] | 3, 6, 9 or 12 mm | 0.12 – 0.47 in | |
| $SiO_2$ | 95.0 ± 1.0 % | | manufacturer's in-house method |
| $Al_2O_3$ | 3.5 ± 0.5 % | | manufacturer's in-house method |
| Alkali and alkaline earth oxides $Na_2O$, $K_2O$, CaO, MgO, BaO | not contained | | exclusion certificate "basic oxides" for every delivery |
| Sizing | < 0.2 % | | |
| **Physical properties** | | | |
| Packing density, recommended | 120 – 140 kg/m³ | 7.5 – 8.7 lb/ft³ | |
| Linear shrinkage at 1000 °C, untreated [1)] | up to 12 % | | manufacturer's information |

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|---|---|---|---|
| Linear shrinkage at 1000 °C, thermally treated (TA) [1)] | 1 – 3 % | | manufacturer's information |
| Temperature resistance | approx. 1000 °C | approx. 1832 °F | |
| Recommended application temperature, continuous service | up to 750 °C | up to 1382 °F | |
| Combustibility | non-combustible | | DIN 4102 |
| **Packaging** | | | |
| Packaging | Plastic bags of 10 kg. | | |
| Transport and storage | Covered means of transport. Store clean and dry. | | |

**Notes**

1. According to the fiber manufacturer's information for high-silica chopped fibers; chopped length and version (untreated or thermally treated) as ordered.

The fiber is produced in compliance with Directive 2011/65/EU (RoHS).

## Revision history

| Version | Date | Change |
|---|---|---|
| 1.0 | November 2026 | First edition as interim version. |