

Quartzel[®] Chopped strands

Since 1922, Saint-Gobain Quartz formerly known as Quartz & Silice has been a solution provider to Aeronautic, Defense and Railway industries. Based in Nemours (France) and also in Louisville, KY (US), Saint-Gobain Quartz is recognized as the world-wide leader in the production of fused quartz fibers commercialized under the brand name Quartzel[®].



Quartzel[®] fiber is a homogeneous, non-porous, continuous, amorphous, ultra-pure silica glass with a SiO₂ content ≥ 99.95%. Quartzel[®] chopped strands are produced from either 9µm or 14µm Quartzel[®] rovings which are chopped to a pre-determined length.

Applications

Thermal shield at elevated temperature

- Thermal protection systems for space launchers
- Ablative material for military and aerospace structure used as a sacrificial ablative component.

Reinforcement for composites

- Small electronic windows and radomes

Main properties

- Outstanding electromagnetic properties thanks to the lowest dielectric constant and dielectric loss among mineral materials (resp. 3.74 and 0.0002 at 10 GHz)
- Non pollutant material with SiO₂ content above 99.95%
- Integrity as insulating material up to 1050°C
- Ablative material above 1600°C

Processing

Quartzel[®] chopped strands can be used in a variety of processes :

- Blending with elastomeric resins: rubber, silicon, phenolics ect.
- Compounding with thermoplastic resins for injection moulding, compression moulding, SMC ect.
- Veil & wet laid mats processes

CHOPPED STRANDS NOMENCLATURE

SiO₂ content ≥ 99.95%

The following table gives details of standard Quartzel[®] chopped strands :

Based on ISO 2078 (Europe)	US customary system	Carton dimensions (mm)	Quantity per carton
C9 33 - 6 mm [sizing*]	300 6 mm [sizing*]	L 650 x W 650 x H 650	5 kg
C9 33 - 12 mm [sizing*]	300 12 mm [sizing*]		
C14 80 - 6 mm [sizing*]	125 6 mm [sizing*]		
C14 80 - 12 mm [sizing*]	125 12 mm [sizing*]		

[sizing*]: Available sizing are : QS1318 (Worldwide) / QSCY1 (Worldwide) / QS13-QPC1 (US Only).
Other lengths are available on demand with a MOQ of 30kg.

- QS1318 and QS13-QPC1 are multipurpose high performance direct sizings, recommended for most textile processes and composite applications. They can be used with thermoset resins and among others : Phenolic, Epoxy, BMI, etc..
- QSCY1 sizing is designed specifically for optimized compatibility with cyanate ester resin systems.

STORAGE

Quartzel[®] chopped fibers properties are guaranteed for 24 months when properly stored indoors, protected from direct sunlight exposure and in its original packaging. Store preferably at less than 35°C, avoiding humidity consistently higher than 80%.

Dual-use disclaimer: Quartzel[®] products are all classified as a dual-use commodity by the European and US authorities. Therefore, an export license is required to export these goods to some countries. Our team will support you in this process.

The information given in this data sheet is believed to be accurate and reliable. However it is the users responsibility to determine whether the material is suitable for their particular application, process and/or environment. This data sheet may be modified without prior notice. Quartzel[®] is a registered trademark of Saint-Gobain Quartz S.A.S. Version CS-A4-EN-07/19 - All rights reserved

<https://www.quartz.saint-gobain.com/>

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