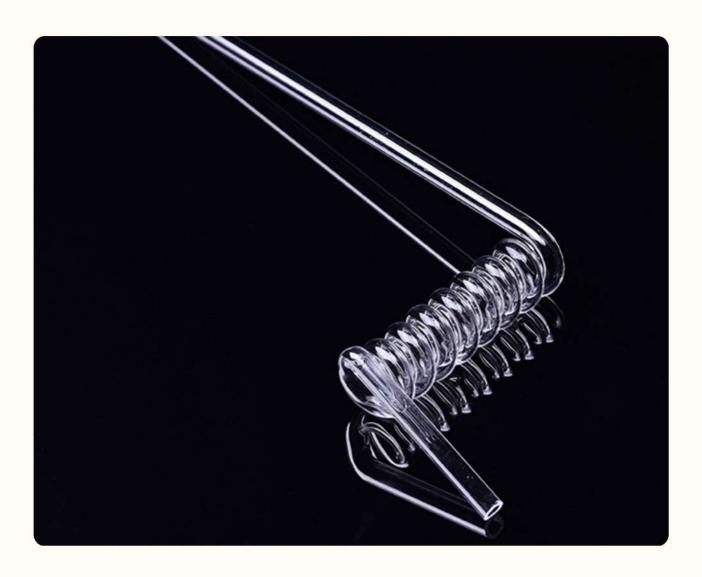






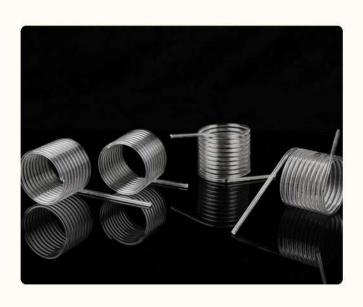
Integrated Engineering & Agile Production
for Demanded Specifications

HIGH-PURITY FUSED SILICA SPIRAL TUBE



Quartz spiral tube has high temperature resistance, corrosion resistance and excellent thermal stability, and has important applications in chemical and food processing, as well as laboratory equipment and other fields.

QUARTZ SPIRAL TUBE PROPERTIES





Extreme Temperature Resilience

- Continuous operation at 1100°C with 1450°C peak capacity
- \cdot Ultra-low thermal expansion coefficient (5.5×10-7/°C)
- Sustained structural integrity under 800°C thermal cycling









Chemical Attack Resistance

- Stable reactivity with 98% sulfuric acid at 300°C
- Negligible metal ion leaching (<0.5ppm @ 24hr/150°C)





Thermal-Chemical Synergy

- · Zero performance degradation after 200 thermal shock cycles
- · Oxidation resistance maintained in 10-6 Torr vacuum environments



QUARTZ SPIRAL TUBE APPLICATIONS

Process Reactor Temperature Control

- · 1,200°C-rated thermal jackets for acid vapor condensation systems
- · 102% H₃PO₄compatibility in continuous chemical cycling operations













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Fluid Monitoring Instrumentation

- ±0.025% FS accuracy in 300-bar pressure sensing modules
- \cdot Non-invasive liquid level detection via refractive index matching (Δ n <0.0015)

Laboratory Measurement Systems

- · Protective sheathing for 800°C molten salt electrochemical cells
- · UV-Vis spectroscopy validation units with >92% transmittance @ 190nm



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TECHNICAL DATA SHEET



Fused Quartz Spiral Tubing ensures ±0.1mm dimensional accuracy and 99.98% purity compliance, with fully customizable optical and thermal parameters—submit your project specs for precision-engineered solutions.

Property	Value Range
Chemical Composition	Cr: 0.1, Ge: 0.4, Fe: 1.5, Mg: 0.4, Ti: 0.1, Ga: 0.8; Al: 16, Na: 2.3, Li: 0.5, K: 2.0
Spectral Transmission (at 1.0mm Thickness)	93% transmittance (280-780nm), 93.4% peak at 780nm, UV cutoff <220nm
Thermal Properties	Softening point: 1615~1683°C, thermal expansion: 5.5~6.7×10-7/cm-°C
Mechanical Strength	Compressive: >1.1×10 ⁹ Pa, Young's modulus: 7.0~7.5×10 ¹⁰ Pa
Optical Performance	Refractive index: 1.456~1.460, dielectric constant: 3.75~6.0 @1MHz



CUSTOM MACHINING

Machining Precision

Precision-engineered helical quartz solutions maintain custom dimensional accuracy through material-specific CNC protocols.

Material Options

Precision quartz helical components adapt material characteristics to operational demands with JGS3 grade achieving >85% IR transmittance across 260-3500nm spectra.



JGS3 Optical Grade

- · 85% Transmittance @2500nm
- · Hydroxyl <5ppm
- · 190-2800nm Cutoff