

# Fused Silica Capillary Tubing

## FSS Standard Polyimide Coating

Standard polyimide coating  
Synthetic fused silica  
100% proof tested at 100kpsi  
High Temperature Operation up to 400 °C

## FSU UV Transparent Coating

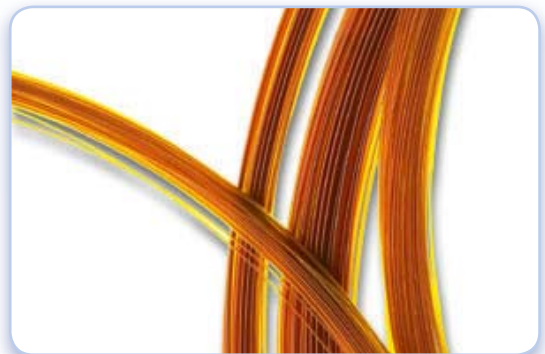
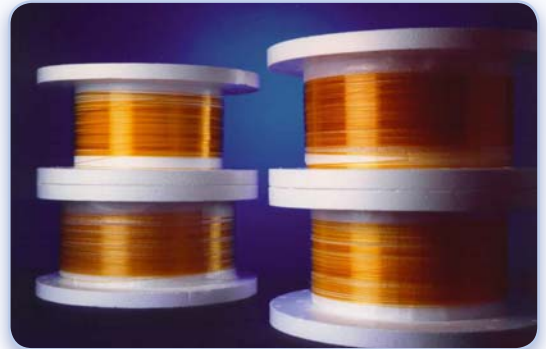
UV transparent Coating  
Synthetic fused silica  
Operation up to 160 °C

## FSP Precision Windowed Capillary

PreCut with window for CE-Instruments  
1 m length for general Applications  
Window 2 mm long for use in CE  
Based on FSS fused silica tubing

## FSF Square Flexible Capillary

Standard polyimide coating as FSS  
Synthetic fused silica with high strength  
Operation up to 350 °C  
Intermittent up to 400 °C



We provide a great variety of flexible fused silica capillary products with inner diameters from 2 - 700  $\mu\text{m}$  and with numerous coatings available. We can supply a wide range of tubing from thin walled polyimide coated flexible fused silica to thick walled silica quartz tubes without coating. We can provide custom sizes, custom tolerances, and a wide range of durable and protective coatings with lowest tolerances to meet our customer's needs.

## Applications

### Fused silica is used for a broad range of applications. Some examples are

- Capillary Electrophoresis with tubing and windowed capillaries.
- Gas Chromatography with tubing and coils and for GC columns in different varieties.
- Genomics with tubing, arrays, and assemblies for DNA sequencing and fragment analysis.
- Proteomics with tubing for capillary LC columns, fluid connections, and MS interfacing.
- Microfluidics including Lab-on-a-chip with tubing for fluid connections for nano/micro devices.
- Mass Flow Control with precision cut pieces for tightly controlled delivery of gases/fluids.
- Precision Flow Cells with custom tubing for Cytometry, Chromatography and CE.

# Fused Silica Capillary Tubing

FSS Standard Polyimide Coating, Length per Meter available on Request, Price per Meter

Part #	ID	OD	Part #	ID	OD
Z-FSS-002150	ID 002 µm	OD 150 µm	Z-FSS-100250	ID 100 µm	OD 250 µm
Z-FSS-005150	ID 005 µm	OD 150 µm	Z-FSS-100270	ID 100 µm	OD 270 µm
Z-FSS-005365	ID 005 µm	OD 360 µm	Z-FSS-100280	ID 100 µm	OD 280 µm
Z-FSS-010150	ID 010 µm	OD 150 µm	Z-FSS-100300	ID 100 µm	OD 300 µm
Z-FSS-010365	ID 010 µm	OD 360 µm	Z-FSS-100315	ID 100 µm	OD 315 µm
Z-FSS-015150	ID 015 µm	OD 150 µm	Z-FSS-100365	ID 100 µm	OD 360 µm
Z-FSS-015365	ID 015 µm	OD 360 µm	Z-FSS-100375	ID 100 µm	OD 375 µm
Z-FSS-020090	ID 020 µm	OD 090 µm	Z-FSS-100500	ID 100 µm	OD 500 µm
Z-FSS-020130	ID 020 µm	OD 130 µm	Z-FSS-115360	ID 115 µm	OD 360 µm
Z-FSS-020150	ID 020 µm	OD 150 µm	Z-FSS-125360	ID 125 µm	OD 360 µm
Z-FSS-020280	ID 020 µm	OD 280 µm	Z-FSS-140240	ID 140 µm	OD 240 µm
Z-FSS-020365	ID 020 µm	OD 360 µm	Z-FSS-140300	ID 140 µm	OD 300 µm
Z-FSS-025150	ID 025 µm	OD 150 µm	Z-FSS-150240	ID 150 µm	OD 240 µm
Z-FSS-025280	ID 025 µm	OD 280 µm	Z-FSS-150260	ID 150 µm	OD 260 µm
Z-FSS-025365	ID 025 µm	OD 360 µm	Z-FSS-150280	ID 150 µm	OD 280 µm
Z-FSS-025370	ID 025 µm	OD 370 µm	Z-FSS-150365	ID 150 µm	OD 360 µm
Z-FSS-030150	ID 030 µm	OD 150 µm	Z-FSS-180260	ID 180 µm	OD 260 µm
Z-FSS-030365	ID 030 µm	OD 365 µm	Z-FSS-180270	ID 180 µm	OD 270 µm
Z-FSS-040130	ID 040 µm	OD 130 µm	Z-FSS-180300	ID 180 µm	OD 300 µm
Z-FSS-040150	ID 040 µm	OD 150 µm	Z-FSS-180365	ID 180 µm	OD 360 µm
Z-FSS-040365	ID 040 µm	OD 365 µm	Z-FSS-200280	ID 200 µm	OD 280 µm
Z-FSS-045235	ID 045 µm	OD 235 µm	Z-FSS-200300	ID 200 µm	OD 300 µm
Z-FSS-050150	ID 050 µm	OD 150 µm	Z-FSS-200350	ID 200 µm	OD 350 µm
Z-FSS-050190	ID 050 µm	OD 190 µm	Z-FSS-200365	ID 200 µm	OD 360 µm
Z-FSS-050200	ID 050 µm	OD 200 µm	Z-FSS-220350	ID 220 µm	OD 350 µm
Z-FSS-050280	ID 050 µm	OD 280 µm	Z-FSS-220360	ID 220 µm	OD 360 µm
Z-FSS-050365	ID 050 µm	OD 360 µm	Z-FSS-250350	ID 250 µm	OD 350 µm
Z-FSS-060365	ID 060 µm	OD 360 µm	Z-FSS-250365	ID 250 µm	OD 360 µm
Z-FSS-075150	ID 075 µm	OD 150 µm	Z-FSS-250380	ID 250 µm	OD 380 µm
Z-FSS-075190	ID 075 µm	OD 190 µm	Z-FSS-280360	ID 280 µm	OD 360 µm
Z-FSS-075200	ID 075 µm	OD 200 µm	Z-FSS-280390	ID 280 µm	OD 390 µm
Z-FSS-075220	ID 075 µm	OD 220 µm	Z-FSS-320435	ID 320 µm	OD 435 µm
Z-FSS-075240	ID 075 µm	OD 240 µm	Z-FSS-320465	ID 320 µm	OD 465 µm
Z-FSS-075255	ID 075 µm	OD 255 µm	Z-FSS-430550	ID 430 µm	OD 550 µm
Z-FSS-075275	ID 075 µm	OD 275 µm	Z-FSS-450550	ID 450 µm	OD 550 µm
Z-FSS-075280	ID 075 µm	OD 280 µm	Z-FSS-450660	ID 450 µm	OD 660 µm
Z-FSS-075365	ID 075 µm	OD 360 µm	Z-FSS-530660	ID 530 µm	OD 660 µm
Z-FSS-100165	ID 100 µm	OD 165 µm	Z-FSS-680880	ID 680 µm	OD 880 µm
Z-FSS-100190	ID 100 µm	OD 190 µm	Z-FSS-700850	ID 700 µm	OD 850 µm

## Part # Description

### FSU UV Transparent Coating

Z-FSU-050365	Capillary, Fused Silica, ID 050 µm; OD 363 µm; Coating 15 µm; 10 m
Z-FSU-075365	Capillary, Fused Silica, ID 075 µm; OD 363 µm; Coating 15 µm; 10 m
Z-FSU-100365	Capillary, Fused Silica, ID 100 µm; OD 363 µm; Coating 15 µm; 10 m

### FSP Precision Window Capillary

Z-FSP-04550-33	Capillary, Fused Silica, ID 050 µm; OD 363 µm; to Detector 24.5 cm, Total 33 cm
Z-FSP-04550-45	Capillary, Fused Silica, ID 050 µm; OD 363 µm; to Detector 31 cm, Total 45 cm
Z-FSP-04550-48	Capillary, Fused Silica, ID 050 µm; OD 363 µm; to Detector 40 cm, Total 48.5 cm
Z-FSP-04550-64	Capillary, Fused Silica, ID 050 µm; OD 363 µm; to Detector 56 cm, Total 64.5 cm
Z-FSP-04550-80	Capillary, Fused Silica, ID 050 µm; OD 363 µm; to Detector 72 cm, Total 80.5 cm
Z-FSP-050365	Capillary, Fused Silica, ID 050 µm; OD 363 µm; to Detector 30 cm, Total 1 m
Z-FSP-04575-33	Capillary, Fused Silica, ID 075 µm; OD 363 µm; to Detector 24.5 cm, Total 33 cm
Z-FSP-04575-45	Capillary, Fused Silica, ID 075 µm; OD 363 µm; to Detector 31 cm, Total 45 cm
Z-FSP-04575-48	Capillary, Fused Silica, ID 075 µm; OD 363 µm; to Detector 40 cm, Total 48.5 cm
Z-FSP-04575-64	Capillary, Fused Silica, ID 075 µm; OD 363 µm; to Detector 56 cm, Total 64.5 cm
Z-FSP-04575-80	Capillary, Fused Silica, ID 075 µm; OD 363 µm; to Detector 72 cm, Total 80.5 cm
Z-FSP-075365	Capillary, Fused Silica, ID 075 µm; OD 363 µm; to Detector 30 cm, Total 1 m
Z-FSP-100365	Capillary, Fused Silica, ID 100 µm; OD 363 µm; to Detector 30 cm, Total 1 m
Z-FSP-04500-33	Capillary, Fused Silica, ID 150 µm; OD 363 µm; to Detector 24.5 cm, Total 33 cm
Z-FSP-04500-48	Capillary, Fused Silica, ID 150 µm; OD 363 µm; to Detector 40 cm, Total 48.5 cm
Z-FSP-04500-64	Capillary, Fused Silica, ID 150 µm; OD 363 µm; to Detector 56 cm, Total 64.5 cm
Z-FSP-04500-80	Capillary, Fused Silica, ID 150 µm; OD 363 µm; to Detector 72 cm, Total 80.5 cm

### FSF Square Flexible Capillary

Z-FSF-050365	Capillary, Fused Silica, ID 050 µm; OD 365 µm; Coating 15 µm; 10 m
Z-FSF-075365	Capillary, Fused Silica, ID 075 µm; OD 365 µm; Coating 15 µm; 10 m
Z-FSF-100365	Capillary, Fused Silica, ID 100 µm; OD 365 µm; Coating 15 µm; 10 m

### Fused Silica Capillaries from Upchurch Scientific/IDEX

FS-110	Capillary, Fused Silica, ID 100 µm; OD 360 µm; 2 m
FS-115	Capillary, Fused Silica, ID 150 µm; OD 360 µm; 2 m
FS-120	Capillary, Fused Silica, ID 020 µm; OD 360 µm; 2 m
FS-150	Capillary, Fused Silica, ID 050 µm; OD 360 µm; 2 m
FS-175	Capillary, Fused Silica, ID 075 µm; OD 360 µm; 2 m

### Fused Silica Capillary for Dionex LC-Packings Ultimate Capillary/Nano HPLC

Z-DI-160475	Capillary, Fused Silica, ID 020 µm; OD 280 µm; 5 m, Interface Capillary to MS
Z-DI-160476	Capillary, Fused Silica, ID 025 µm; OD 280 µm; 5 m, Interface Capillary to MS
Z-DI-160477	Capillary, Fused Silica, ID 050 µm; OD 280 µm; 5 m, Interface Capillary to MS
Z-DI-160478	Capillary, Fused Silica, ID 075 µm; OD 280 µm; 5 m, Interface Capillary to MS
Z-DI-160479	Capillary, Fused Silica, ID 100 µm; OD 280 µm; 5 m, Interface Capillary to MS
Z-DI-160480	Capillary, Fused Silica, ID 150 µm; OD 280 µm; 5 m, Interface Capillary to MS
Z-DI-160481	Capillary, Fused Silica, ID 200 µm; OD 280 µm; 5 m, Interface Capillary to MS

### Deactivated Fused Silica Capillary as Precolumn for GC

Z-GC-250360	Deactivated Capillary, Fused Silica, ID 250 µm; OD 360 µm, 10 m
Z-GC-320435	Deactivated Capillary, Fused Silica, ID 320 µm; OD 435 µm, 10 m
Z-GC-530670	Deactivated Capillary, Fused Silica, ID 530 µm; OD 670 µm, 10 m

Deactivated with Methyl, Phenyl, Polyethylenglycol, Cyano, Trifluor.

### Other lengths available on request!

Technical specifications are subject to change without further notice.

## Key Features

- Internal diameters from 2 µm up to approx. 700 µm.
- Outer diameters down from 90 µm up to approx. 900 µm.
- Excellent chemical durability and inertness.
- Silica and quartz that are stronger than steel.
- Tight but still economical affordable tolerances.
- Materials that are easy to cleave or cut.
- Proven combination of silica and polyimide.
- FS capillaries with unique strength/flexibility.
- Low fluorescence background for stable reproducible use in on-column detection methods because of superior UV/Vis transmission when protective coating is removed.
- High purity silica allows for precision laser machining of integrated value added features.
- Avoid coating contact on the outside with organic solvents, acids or alkaline solutions. This might break/dissolve the coating.

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- Standard polyimide coating
- Synthetic fused silica
- 100 % proof tested at 100 kpsi
- High Temperature Operation up to 400 °C

### FSU UV Transparent Coating

- UV transparent Coating
- Synthetic fused silica
- Operation up to 160 °C

### FSP Precision Window Capillary

- PreCut and with window for CE-Instruments
- 1 m length for general Applications
- Window 2 mm long for use in CE
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### FSF Square Flexible Capillary

- Standard polyimide coating as FSS
- Synthetic fused silica with high strength
- Operation up to 350 °C
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