



## 0.7 mm Quartz Capillary - 25/pk

- X-ray data collection
- Liquid-liquid diffusion crystallization
- Gel acupuncture crystallization

### Product codes:

Reference: HR 6140

### Product gallery:



### Product description:

- Thin walled - 10 micron
- Quartz Glass 0620

Crystal Clear Quartz capillaries that are extremely thin walled (approximately 10 micron wall thickness). The length of the capillary has a well defined diameter, with one end having a funnel shape and the other end closed. Quartz capillaries have a wall thickness of 0.01 mm and an overall length of 80 mm  $\pm$  5 mm. Quartz capillaries are available in a wide range of outside diameters from 0.1 mm to 5.0 mm. They are designed to mount, hold, and store small molecule and biological macromolecular crystals for x-ray data collection. Capillaries can also be used for crystal density measurements and crystal growth experiments. The capillaries can be sealed tightly against moisture and gases using wax, epoxy, or other sealing materials.

In determining what glass or quartz capillary is right for you, please refer to the "Linear Absorption Coefficient  $\mu$  cm<sup>-1</sup>" table. This table indicates the amount of radiation that is absorbed by the capillary during x-ray data collection.

For 0.1 mm to 2.5 mm capillaries the open end capillary tube base size is 3.0  $\pm$  0.2 mm OD x 0.2  $\pm$  0.15 mm Wall thickness. For 3.0 and 3.5 mm capillaries the open end capillary base size



is about 4.4 mm OD x 0.25 mm Wall thickness. For 4.0 and 5.0 mm capillaries the open end capillary based size is about 6.0 x 0.25 mm.

The Diameter is measured about 30 to 40 mm from the closed end (measuring instrument: LaserMicrometer LS 7500) The tolerances are as follows.

Diameter Tolerance Minimum Diameter Maximum Diameter

|        |                |         |         |
|--------|----------------|---------|---------|
| 0.1 mm | +/-0.05 mm     | 0.05 mm | 0.15 mm |
| 0.2 mm | +/-0.05 mm     | 0.15 mm | 0.25 mm |
| 0.3 mm | +/-0.05 mm     | 0.25 mm | 0.35 mm |
| 0.4 mm | +/-0.05 mm     | 0.35 mm | 0.45 mm |
| 0.5 mm | +/-0.05 mm     | 0.45 mm | 0.55 mm |
| 0.6 mm | +/-0.05 mm     | 0.55 mm | 0.65 mm |
| 0.7 mm | +/-0.05 mm     | 0.65 mm | 0.75 mm |
| 0.8 mm | +/-0.05 mm     | 0.75 mm | 0.85 mm |
| 0.9 mm | +/-0.05 mm     | 0.85 mm | 0.95 mm |
| 1.0 mm | -0.05 +0.25 mm | 0.95 mm | 1.25 mm |
| 1.5 mm | +/-0.25 mm     | 1.25 mm | 1.75 mm |
| 2.0 mm | +/-0.25 mm     | 1.75 mm | 2.25 mm |
| 2.5 mm | +/-0.05 mm     | 2.25 mm | 2.55 mm |
| 3.0 mm | +/-0.25 mm     | 2.75 mm | 3.25 mm |
| 3.5 mm | +/-0.25 mm     | 3.25 mm | 3.75 mm |
| 4.0 mm | +/-0.25 mm     | 3.75 mm | 4.25 mm |
| 5.0 mm | +/-0.25 mm     | 4.75 mm | 5.25 mm |

#### Quartz Specifications

Glass type Fused silica / quartz glass

Density 2.2 g/cm<sup>3</sup>

Transformation temperature T<sub>g</sub>= 1075 - 1210 degrees Celsius

Strain point approximately 1075 degrees Celsius

Annealing point approximately 1180 degrees Celsius

Softening point approximately 1730 degrees Celsius

Working point 1700 - 2100 degrees Celsius

Refractive index 1.46 589.3nm

Mohs hardness 5.5 - 6.5

Hydrolytic resistance, class 1 (DIN 12 111)

Acid resistance, class 1 (DIN 12 116)

Alkalai resistance, class 1 (DIN 52 322)

Chemical composition SiO<sub>2</sub> 99.99%

Trace elements

Al 16.00 ppm

Ca 0.80 ppm

Fe 0.80 ppm

K 0.90 ppm

Li 0.70 ppm



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Na 0.90 ppm  
Ti 1.50 ppm  
Mg 0.10 ppm  
Cu 0.05 ppm  
Cr 0.05 ppm

Capillaries have only been tested at atmospheric pressure (760 mmHg (torr), 29.92 inHg, 14.696 psi). Use at other pressures has not been tested.

Per maggiori informazioni visita il sito <https://hamptonresearch.com/>

**Product features:**

CRF - TIPO: Quartz Capillaries