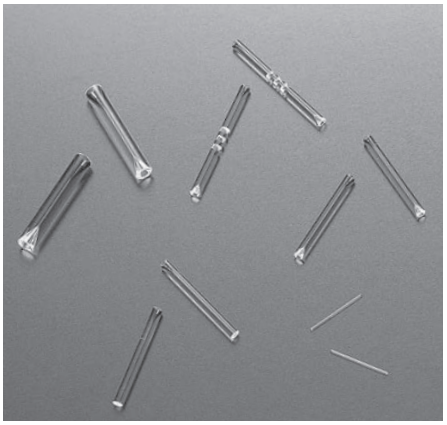
Micro Capillary

Micro Capillary is made of borosilicate glass. It is used for optical connectors and fiber supports in optical devices. Because Micro Capillary has a polishing characteristic similar to silica optical glass fibers, the precise polished face required for optical PC (physical contact) connection can be easily obtained.
The high UV transmitting characteristic makes it possible to adhere capillaries and fibers, lenses or holders with UV-curable adhesive in a short time.
The nozzle end type allows for firm insertion of whole optical fibers with jackets and precision glass tube type which can be used as outer tube.



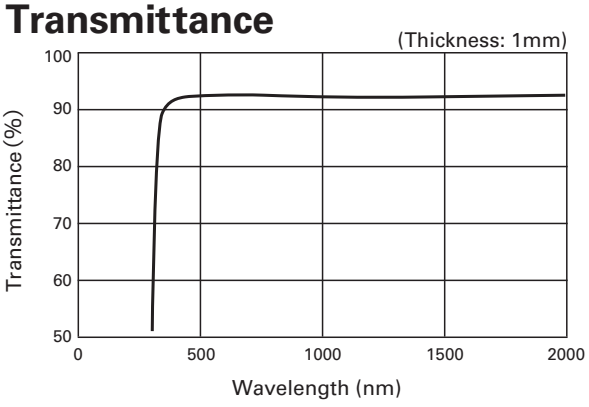
Features

- High dimensional accuracy
- Various inner hole and outer shape designs
- Smooth cone end for fiber insertion
- High UV transmittance for UV adhesive

Properties

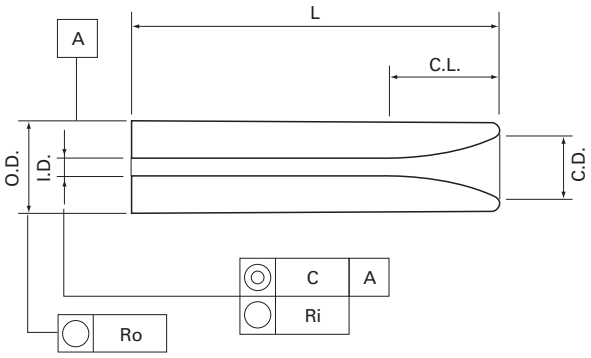
Properties/Glass			Borosilicate glass
Coefficient of thermal expansion	30-380°C	$\times 10^{-7}$/K	51
Density		$\times 10^{3}$kg/m^{3}	2.36
Refractive index (n_d)			1.49
Hydrolytic resistance	JIS R3502	R_2Omg	0.05

Transmittance

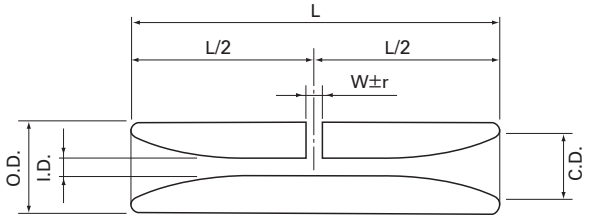


Dimensions

1) Single-cone End Capillary

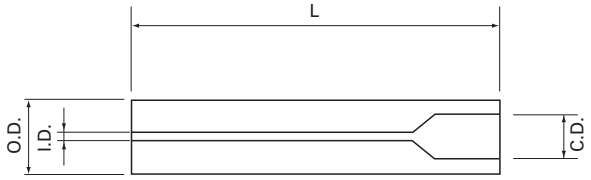


2) Dual-cone Ends Capillary

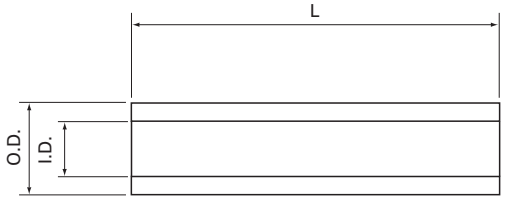


3) Single/Dual-chamfered Ends Capillary

4) Nozzle End Capillary



5) Precision Glass Tube



Dimensional Specifications

(mm)

Subjects	Dimensions	High precision	Normal
Outer Diameter (O.D.)	0.5 1.80 0.99 2.50 1.25	± 0.005	± 0.01
O.D. roundness (Ro)	O.D. ≦ 2.5	0.001	0.002
Inner Diameter(I.D.)	0.060 0.127 0.081 0.126	+0.001 − 0	+0.003 − 0
I.D. roundness(Ri)	I.D. ≦ 0.2	0.001	0.003
Concentricity(C)	O.D. ≦1.0	ϕ 0.001	ϕ 0.003
	1.0≦O.D.≦2.5	ϕ 0.003	
Length (L)	50max.	± 0.2	
Slit width (W)	0.2	± 0.05	

Cone Dimensions — example

(mm)

Form	Inner Diameter (I.D.)	Cone Diameter (C.D.)	Cone Length (C.L.)
Cone End	≦ 0.130	0.75 ± 0.2	1.5 ± 1.0
		1.1 ± 0.2	2.5 ± 1.0
	> 0.130	0.75 ± 0.2	3.0 ± 1.5
Nozzle End	—	1.0 ± 0.1	—

Other combinations of dimensions are available upon request.