

Polymicro Technologies™

Capillary Tubing

Capabilities and Accessories



Offering value-added capabilities such as cleaving, cutting, windowing, and custom assemblies and arrays with industry-leading synthetic fused silica capillary tubing, Polymicro Technologies™ provides superior capillary solutions from a vertically integrated facility

Features and Benefits

Cutting and cleaving to custom lengths and applications

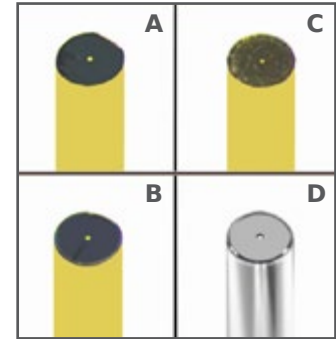
- Standard Cleave (A) – ideal for general capillary applications; slight end face roughness
- Precision Cleave (B) – $\leq 3^\circ$ perpendicularity; minimizes debris and surface defects
- Saw Cut (C) – ideal for high volume; surface defects and chips may be present
- Laser Cut (D) – ultra-high quality cuts; surface is a defect free, polished end face
- Rough Cut – low-cost cut; further end face prep is required prior to use

Windowing

- Thermal and/or UV coating removal
- Non-abrasive coating removal with excellent optical surfaces
- Ideal for capillary electrophoresis
- Maintains the underlined fused silica characteristic
- Controlled transition areas from Polyimide to fused silica
- Low background fluorescence

Capillary assemblies and arrays

- Capillary tubing combined with optical, electrical, mechanical and fluidic functions in a single integrated device/assembly
- Singular and multi-capillary device/assemblies developed in cooperation with customers to meet their exact application requirements
- The development cycle is reduced by incorporating Polymicro's years of experience in assembly and array production



Cutting and Cleaving



Windowing (Coating Selectively Removed)



Capillary Assemblies and Arrays

Applications

Scientific

- Chromatographic Techniques
- Micro- and Nano-Fluidics
- On-Column Monitoring
- Evanescence Based Sensing
- Coaxial Light and Fluidic Devices

Industrial

- Package Leak Testing
- Evaporative Cooling Systems
- Petroleum Analysis
- Catalytic Research

Medical

- Precision Drug Delivery
- Flow Control Systems
- Clinical and Diagnostics Devices
- Wearable Drug Delivery Devices

Accessories



Inner-Lok™ GC Y Union



Inner-Lok™ GC Union



Cleaving Stone

Product Overview

Polymicro Technologies™ Capillary Capability Offerings		
Cutting & Cleaving	Windowing	Capillary Assemblies & Arrays
Standard Cleave (for routine use)	Thermal Removal	Single Capillary
Precision Cleave ($\leq 3^\circ$ \perp end face cleave)	UV Removal	Multiple Capillary
Saw Cut (high volume)	Thermal & UV Removal combined	Integrates Capillary and other components
Laser Cut (defect free)	Excellent transmission into the Deep-UV	Simple to Complex devices/assemblies
Rough Cut (further end prep may be required)	Reduced Background Fluorescence	Finished OEM testing and Packaging

Capabilities Overview

Capability Description	Method	Min. Overall Length (mm)	Max. Overall Length (cm)	End Face Quality (1 being the best)	End Face Angle (1 being the smallest)	Cleanliness (1 being the cleanest)
Cutting and Cleaving	Standard	20	To Be Quoted	3	4	3
	Precision	25*		2	1	2
	Saw	0.5	4.5	4	3	4
	Laser	7	200	1	2	1

*Based on an OD between 350 μ m & 665 μ m; 40mm min. other sizes

Capability Description	Methods	Min. Window Length (mm)	Max. Window Length (mm)
Windowing	Thermal or Ultra-Violet	2	To Be Quoted

Capability Description	Methods	Min. Overall Length (m)	Max. Overall Length (m)	Min. Capillary Quantity	Max. Capillary Quantity
Capillary Assemblies and Arrays	Simple Single, Complex Multiple Combination Capillary, and Fiber	To Be Quoted	100	1	384

Accessories Overview

Material Number	Product Description	Taper ID Minimum	Taper ID Maximum	Outside Diameter	Nominal Length	Package Size
106845-0059	Inner-Lok™ GC Y Union	200 μ m	300 μ m	1800 +0/-20 μ m	38mm	10
106845-0099	Inner-Lok™ GC Union 5-pack					5

Material Number	Product Description	Image	Material	Dimensions	Package Size
106868-0064	Cleaving Stone	Molex – Polymicro Technologies	Ceramic Tile	1" x 1" x 1/32"	Individual