

## PFA coating Removal on Copper Wires Not Recommended Using the Window Maker - Tech Information

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### Overview

This article explains the intended purpose of the MICROSOLV Window Maker and clarifies its limitations when used outside its primary design specifications. The instrument is engineered specifically to remove polyimide coatings from fused silica capillaries used in capillary electrophoresis. Although some users in fiber optics and related industries have attempted to use the device for removing PFA coatings from copper wires, results are inconsistent.

This document outlines why reliable removal cannot be guaranteed and why the Window Maker is not recommended for this alternative application.

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### Purpose and Design of the Window Maker

The MICROSOLV Window Maker is engineered for one specific analytical task: to create detection windows in polyimide-coated fused quartz or fused silica capillaries used in capillary electrophoresis (CE).

To achieve this, the device generates a precise, low-heat output calibrated to:

- Burn away polyimide cleanly
- Avoid overheating the capillary
- Prevent thermal shock or deformation of the underlying glass

This heat profile is matched to a very specific capillary outer diameter (OD) and polyimide thickness commonly used in CE instrumentation. Because of this precision, the unit's performance and reliability depend on using it exactly as intended.

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### Why the Window Maker Is Not Recommended for PFA Removal

Although designed exclusively for polyimide removal, some fiber optics and specialty cable companies have experimented with the Window Maker to remove PFA (perfluoroalkoxy alkane) coatings from copper wires.

In practice:

- Some users report partial or limited success, especially on thinner PFA layers.
- Results vary widely, due to differences in wire gauge, coating thickness, PFA melting characteristics, and thermal conductivity of metal substrates.
- The amount of PFA removed during each use is inconsistent, which can affect manufacturing precision, electrical reliability, and coating uniformity.

Because the Window Maker's heating system is not optimized for PFA—which requires different thermal conditions than polyimide—the device cannot produce dependable or repeatable outcomes on copper wire applications.

For this reason, MICROSOLV does not recommend or support the unit for removing PFA coatings or for any purpose other than CE capillary window creation.

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### **Ordering Information:**

For MICROSOLV Window Maker specifications, product photos, and ordering details: **Click [HERE](#)** .

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