

Verrillon®

Handling Procedures for Silicone PFA Fibers

Stripping

Silicone PFA fibers come in many different coating diameters, from as small as 250 μm to as large as 700 μm . Mechanical strippers, such as the “Miller Stripper,” typically work well for 250 μm Silicone PFA. For larger OD fibers, Miller “No-Nik” strippers work very well; a “set” includes 175 μm , 203 μm , 254 μm , and 305 μm strippers. 305 μm works well for 700 μm Silicone PFA.

Whatever method is used—the carbon coating will not be removed from the fiber.

Cleaning/Cleaving

Clean the exposed glass by using a lint free tissue lightly moistened with 99% isopropyl alcohol. This will remove any excess coating, and will extend the life of your cleaver. There is no difference between cleaving a carbon versus a non-carbon coated fiber.

Fusion Splicing

Depending on your splicer and how much coating you have stripped, fiber alignment can be problematic. You might need to change the fiber clips in the splicer to accommodate the larger OD fiber.

Once a standard single-mode or multimode fiber splicing program has been chosen, ensure that the pre-fuse portion (“cleaning arc”) of the program is performed at an early stage, before the fiber alignment step takes place. Generally, there is no need to change the detailed current settings of the pre-fuse step; however, the pre-fuse portion must remove the carbon from the fiber ends. If it does not, you will need to change the pre-fuse step time. The rest of the splicing process proceeds exactly as for non-carbon coated fibers. Because some of the vaporized carbon re-deposits on the surface of the electrodes, frequent cleaning of the electrodes is advised in order to have low-loss, high-strength, spliced fibers.