

Usage of Swabs at IITBNF

Usage of Swabs

Please issue swabs from Mani Madam.

Specifications of the clean swabs:

1. Item #: TWTX740B. Medium CleanFoam Swabs with Long Handle, Texwipe.
2. Vendor Address:
VWR.com
3745 Bayshore Blvd.
Brisbane, CA 94005

Usage Guidelines:

1. Swabs may be used to remove unwanted metal during lift off. These high quality swabs do not release any particulate and are compatible to use on devices in cleanroom environment. It is not necessary to use swabs. When metal does not get lifted off even after several hours of immersion in the solvent, swab may be used.
2. By making hard contact with the device gently, one can remove or swab away unwanted metal during lift off process. You may use another swab to hold the wafer on its edge, while use the other to gently swab away the unwanted metal film.
3. One can also dip the sample in beaker containing DI water, and look through Stereoscope [Scope with long handle or large working area/depth], and preferentially remove the metal from unwanted areas. **You cannot dip the sample in Acetone and put it underneath the stereoscope as Acetone cannot be used outside fumehood area. The stereoscope in Micro 2 is not in fumehood. You may swab in the fumehood using acetone. But to do preferentially you may need microscope/stereoscope and you need to immerse in DI water. Please do not use Microscope such as the one in Micro 1 lab, only use stereoscope with long handle and large working space, similar to the one in Micro 2 lab for this purpose.**
4. Swabbing has to be done very gently without damaging the devices.
5. If ultrasonic usage for lift off may seem to damage your devices or decrease adhesion of seed layer, swabbing may be an alternate to avoid the damage. The syringe method to remove unwanted metal may not be effective and hence usage of swabs is introduced.
6. After removing unwanted metal, Rinse the sample again in DI water.
7. Dry the sample with Nitrogen.
8. Swabbing happens to increase metal lift off yield by around 40% if done gently and carefully under stereoscope.
9. Please try to use swabs conservatively but not at the expense of cross contamination of your devices as that would be more costly. Swabs are Rs. 35 per piece.
10. Please discuss any queries with Mani or Jayashree Madam.