

Rules for UTD Cleanroom CEE Spinner Operation

Roger Robbins

4/22/2010

1. Never drip resist on the mouth of the bottle. Dried resist from the mouth and cap of the resist bottle will grind into powder and fall back into the bottle in the form of gel particles that cause comet defects on substrates for future users of the resist bottle.
2. Always clean off resist from the mouth and cap of the bottle – wet a lint-free cloth with Acetone and wipe the bottle and lid threads. If the chuck you need is coated with specks to pools of resist, clean it before you use it - to prevent substrates from flying off because of poor vacuum.
3. Never coat a substrate smaller than the diameter of the chuck. This prevents resist from being sucked back into the clamping vacuum system which reduces the substrate clamping force and causes substrates to fly off during spin.
4. Reduce the amount of solvent fumes escaping into the room:
 - a. Keep the CEE spinner hood sash closed all the time.
 - b. Open resist bottle next to in-draft airflow of CEE spinner hood opening.
 - c. Dip transfer pipette into the resist bottle liquid, draw out just enough for one substrate and lift out of the bottle without touching the mouth.
 - d. Never squirt remnant resist in a pipette back into the bottle of resist. This will inject partially dried resist back into the jar as partially dissolved gel particles, which, when spun onto a new wafer will produce “comet tails.”
 - e. Set the resist bottle down and close the lid. Solvent rapidly evaporates into the room air from the resist bottle and endangers everyone's health in the room. Keep the bottle closed all the time except for each individual resist extraction.
 - f. After depositing resist on your substrate, set the pipette on a cloth or paper blotter inside the CEE hood on the shelf at the right side.
 - g. At the conclusion of the spinning operation, wrap the pipette in the blotter paper and quickly deposit it in the exhausted solvent trash can.
 - h. Transfer the newly coated substrate to an exhausted hotplate or oven quickly.
 - i. Immediately clean the spin bowl with acetone and a cloth by spraying the Acetone around the bowl and then quickly wiping the bowl with the cloth.
 - j. Immediately transport the solvent-soaked cloth to the exhausted trash can.
 - k. Clean the substrate chuck with Acetone and set it on the CEE spinner at the right side of the spinner hood.

Dr. Roger Robbins

University of Texas at Dallas

Lord High Chief Safety Officer of the Entire Clean Room