Shipley SPR955-CM Photoresist

i-line (365 nm) specific photoresist, used with the 10X and AS200 Steppers.

Available as SPR955CM-0.9 and SPR955CM-2.1 (0.9 and 2.1 µm @4000 rpm).

1.a. (Optional) Dehydration bake at 150°C for 30 minutes.

1.b. Liquid prime with P-20 (20% HMDS) primer. Apply primer over entire wafer, allow to remain for 10 seconds, then spin dry (3000-5000 RPM, 30 sec.)

-or-

1. Vapor prime wafer with YES Oven HMDS process.

2. Dispense photoresist in middle of wafer. Spin immediately at desired speed, 20 - 30 seconds (thicker films may take a longer time to reach uniformity). You may wish to ramp up to the desired speed for better coverage over topography.

3. Solvent removal bake at 90°C for 90 seconds on the hot plate or 30 minutes in the 90°C oven.

4. Expose. Time will vary depending on resist thickness, bake time, substrate reflectivity, intermediate film thickness, etc. See Sample Processes page for approximate exposure times.

5. Post-exposure bake, 115 - 120°C for 90 seconds on hotplate. Post-exposure baking for this resist is required for optimum resolution. (115°C is OK for most applications.)

6. Develop for 45 - 60 seconds in AZ 300MIF.
7. (Optional) Hard bake at 115°C - 125°C for 1 - 2 minutes on the hot plate, or 20 - 30 minutes in the oven. The hard bake serves to promote adhesion during wet etching or increase selectivity during dry etching.