AZ P4903 Photoresist

General-purpose broadband (365 nm - 436 nm) resist, best suited for use on the 5X Stepper and Contact Aligners. Not recommended for the i-line Steppers.

Available as AZ P4903 (8 - 30 µm @750 - 6000 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 115°C - 130°C for 1.5 - 3 minutes on the hot plate or 30 - 60 minutes in the 90°C oven. Thicker films may benefit from longer baking (see product data sheets). A hold time of at least 20 - 30 minutes is required to allow water to diffuse back into the film before exposure.

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. Develop for 1.5 - 3 minutes in AZ 421K.
6. (Optional) Hard bake at 115°C for 1 minute or longer on the hot plate, or 30 minutes in the oven. The hard bake serves to promote adhesion during wet etching or increase selectivity during dry etching.