

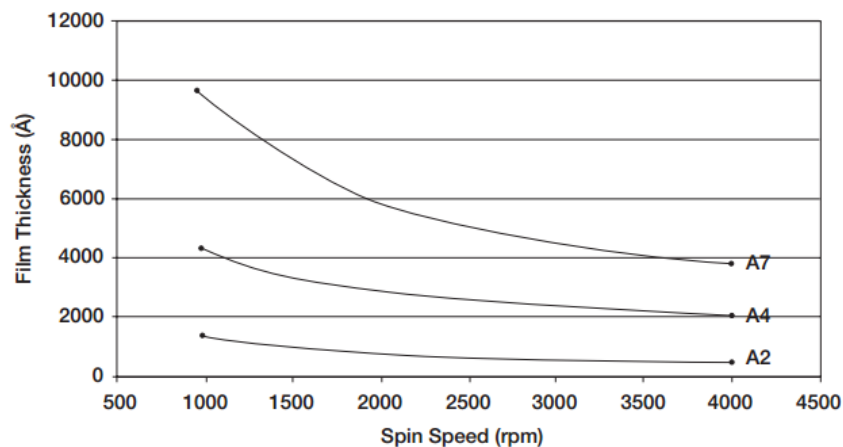
# Deposition of Resist (PMMA 950K)

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- 1) The substrate should be clean and dry. It should be cleaned via Acetone, Isopropyl Alcohol (IPA) and distilled water and dried at hot plate at  $180^{\circ}$  for 60 seconds.
- 2) Turn-on the spin coater and adjust the parameters by pressing the 'FCN' button.
- 3) Set resist's spreading time and speed (recommended: 500 rpm for 5-10 seconds).
- 4) Afterwards, set the spin speed of high acceleration and adjust the holding time.
- 5) This high acceleration rate will actually define thickness of the deposited resist. For example, different thicknesses of PMMA 950K can be achieved by using following graph.  $1\text{\AA} = 0.1\text{ nm}$

## 950PMMA A Resists Solids: 2% - 7% in Anisole



- 6) Remove spin-coater's lid and fix the sample on the holder by applying tape on its corners.
- 7) Pour two or three drops of resist on the sample and put back the spin-coater's lid.
- 8) Now press the 'run' button to rotate the sample.
- 9) After spin-coating, place the film on hot plate at  $180^{\circ}\text{C}$  for 120 seconds.
- 10) Make sure resist is deposited smoothly. This smoothness should be identifiable via naked eye.
- 11) If resist's thickness is the critical feature, perform ellipsometry of the deposited sample to confirm it. It may not 100% agree with aforementioned graph due to equipment error.