



GENESIS MATERIAL TECHNOLOGY

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AQ 3000 DC (Dip Coating)

Waterborne Liquid Photoresist

General Information

AQ 3000 is a negative acting liquid photoimageable photoresist designed to **eliminate VOCs** and **harmful solvents** from the photoresist process. It is a completely waterborne product, which can be used in all standard coating dip coating equipment. AQ 3000 is completely water-reducible to meet specific viscosity requirements. It is compatible with standard coating, exposure and DES processes. The AQ series helps **reduce the carbon footprint** in the PWB manufacturing process by eliminating VOC emissions.

AQ 3000 Highlights

- Completely Waterborne
- Solvent-free. No VOCs
- LDI Compatible
- 10 mJ Exposures
- Hi Resolution
- Superior Adhesion
- Cleans up in soap and water
- Supplied as 42% solids
- For all standard coating equipment
- One part system

AQ Series Imaging Products

**Waterborne
VOC Free
Hi Performance**

**AQ 2000 Soldermask
AQ 2100 Legend Ink
AQ 3000 Photoresist**

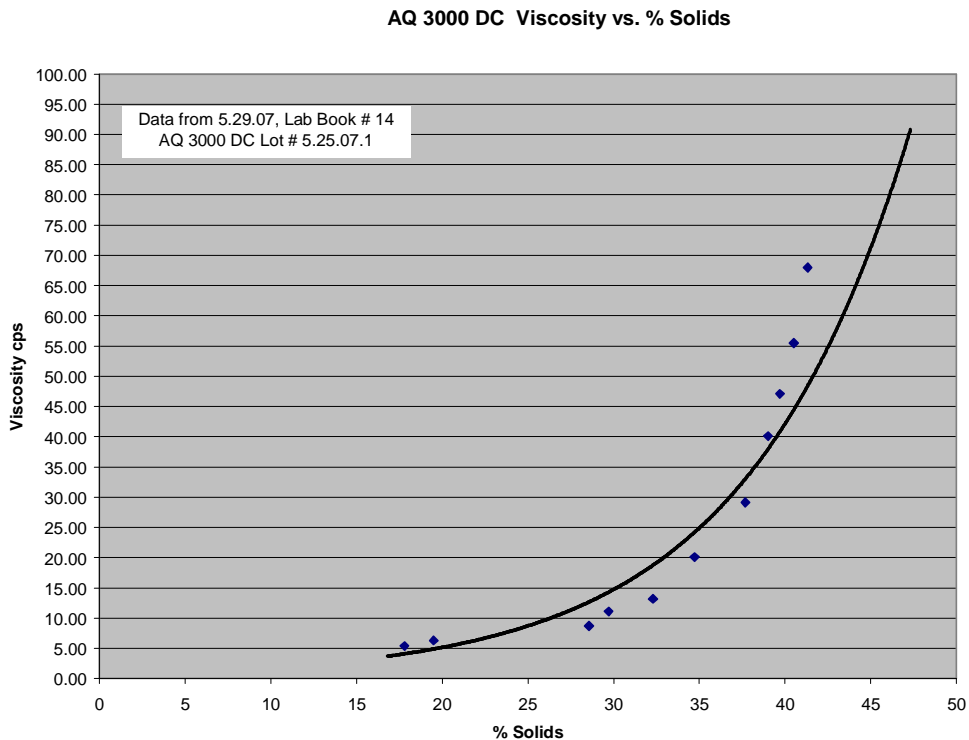
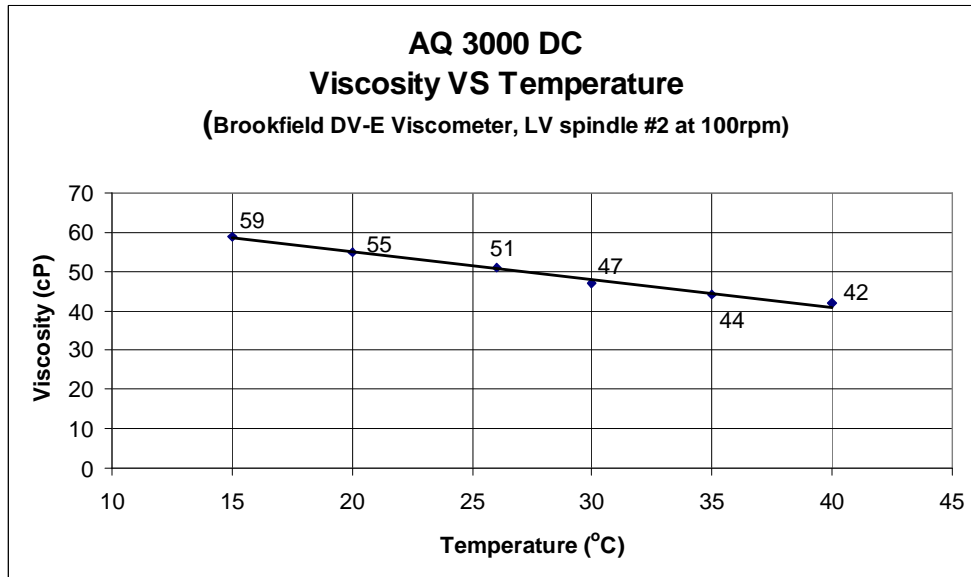


The Power of Water

Process Parameters

Viscosity:	60-80 cps.
Drying Temperature:	250°F* (120 –125°C) * Box oven temperature, actual surface temperature 180F
Drying Time:	2 Minutes
Exposure Energy:	35-80 mJ/cm ² Standard Exposure Equipment (10-20 mJ/cm ² exposures have been achieved for 1 mil resolution)
Sensitivity	7-9 Steps (Stauffer 21 step tablet)
Developing solution:	Potassium Carbonate, 0.5-0.75%
Developing Temperature:	85F (30°C)
Developing Dwell:	60 Seconds
Developing Pressure:	15-30 PSI
Etching Solution:	Cupric Chloride, HCl, 2.5 – 2.8 N Also ferric chloride
Etching Temperature:	122°F (50°C)
Etching Pressure:	15 – 30 PSI
Stripping Solution:	Sodium Hydroxide, 2-3%
Stripping Temperature:	140°F (60°C)
Stripping Pressure:	10 psi

AQ 3000 DC is shipped at a ready to use viscosity of 60-80 cps, (Brookfield Viscometer, LV Spindle # 2 @ 100 RPM.) Resist viscosity should be monitored periodically due to water evaporation. Water adds can be made simply by adding DI water with sufficient mixing. Temperature should be maintained at a constant. The following charts show the dependence of AQ 3000 DC viscosity on temperature and % solids.



3.14.08 Rev.