

# PECVD PROCESS

## Plasma Enhanced Chemical Vapor Deposition

### PECVD Amorphous Silicon

Thickness	Tolerance	Temperature Range
500A-5KA	±5%	380°C
5K-10K	±5%	380°C
10-20KA	±5%	380°C
20-40KA	±5%	380°C

WIWNU: Wafer-within-Wafer Non-Uniformity: ±5% @ Range  
 Note: Film measured on IKA oxide.

### Plasma Nitride (R.I. 2.0 ±0.03)

400A-5KA	±5%	380°C
5KA-10KA	±5%	380°C
10KA-15KA	±5%	380°C

WIWNU: Wafer-within-Wafer Non-Uniformity: ±5% @ Range

### Silicon Carbide (R.I. 2.1 ±0.5)

400A-3KA	±5%	380°C
5KA-10KA	±5%	380°C
10KA-20KA	±5%	380°C

WIWNU: Wafer-within-Wafer Non-Uniformity: ±5% @ Range  
 Note: 200mm, 8" requires 10mm edge exclusion.

### Wafer Size

mm	Inches
100	4
125	5
150	6
200	8

Note 1:

- Incoming Inspection of Wafers.
- Variations of deposition temperature is available upon request.
  - Upon inspection of wafers, additional cleaning may be required. Customer will be notified for disposition of material to receive the following:
    - SRD, Spin Rinse Dry
    - SC1/SC2
  - Additional processing and or cleaning may result in an additional charge.

### Equipment / Tool

#### Variable Frequency / Power

1250W @ >1300 MHz
750W @ 100 – 400 kHz

Note 2:

- All film deposition measurements are made on silicon test wafers.
- All multi-stack deposition measurements are made on each individual film deposition, not on the entire stack, utilizing a silicon test wafer.
- A uniformity map will be provided for each film.
- Noel is responsible for the film deposition, uniformity and thickness.
- Noel is not responsible for results of multi-stack depositions.