NOEL Technologies

PECVD Process

Plasma Enhanced Chemical Vapor Deposition

Plasma Enhanced TEOS (TEOS Base) (R.I. 1.45 ±0.02)

Thickness	Tolerance	Temperature Range
400A-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

Low Temperature Plasma Oxide LTO (Silane Base) (R.I. 1.5 ±0.03)

Thickness	Tolerance	Temperature Range
400A-5KA	±5%	380°C
5KA-10KA	±5%	380°C

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

Oxi-Nitride (R.I. 1.7 ±0.2)

Thickness	Tolerance	Temperature Range
400A-3KA	±5%	380°C
3KA-5KA	±5%	380°C
5KA-10KA	±5%	380°C
10KA-20KA	±5%	380°C

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

Wafer Size

mm	Inches
100	4
125	5
150	6
200	8

Equipment / Tool

Variable Frequency / Power
1250W @ >1300 MHz
750W @ 100 – 400 kHz

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.

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.

Note 3:
– R.I. as measured on bare test wafer IKA film thickness.

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