

Standard Oxide Recipe - Unaxis PECVD

March 11, 2013

Equipment

Equipment	Unaxis PECVD
Manufacture	Plasma-Therm
Model	Unaxis 78324
Platen size	10 in

Recipe

Recipe Name	STD-OX
Gas	5% SiH ₄ /He 400 sccm N ₂ O 900 sccm
Platen Power	25 W
RF Frequency	13.56 Mhz
Chamber Pressure	900 mTorr
Platen Temperature	250 C

Results ^a

Deposition Rate	516.98 A/min ^b
Uniformity	7.0% ^c
Refractive Index	1.498 ^d
Stress Level	-83.49 MPascal ^e
Etch Rate (100:1 BOE)	202.0 A/min ^f

^a: All data is updated as the date indicated above

^b: An average value from 20 min deposition

^c: Film thickness variation across a 4" wafer, defined as (max-min)/average

^d: An average value across a 4" wafer

^e: Measured with optical stress measurement tool

^f: An average value from 20 min etch