IWS STANDARD FILMS

Below listed find some of the standard films and processing steps that may be required for process development. These are not inclusive of all the processing IWS can provide, and if you need technical information or other films, please contact us.

PROCESS CAPABILITIES:

FILM TYPE	EQUIPMENT	DIAMETER	SPECIFICATION LIMITS
SC1/SC2 clean	SCP recirculating filtered tanks Semitool SRD	1-8 inch	
Wet thermal oxide	Thermco furnaces Cantilever load Mactronics quartz Autoloader	1-12 inch	± 2% across wafer, wafer to wafer 100Å - 2 µm thickness Particles added 10 at 0.3 µm size
PeTEOS, PENitride PeOXIDE	Varian 5105	6-8 inch	± 5% across wafer, wafer to wafer 100Å- 2 µm thickness
LPCVD TEOS	Thermco LPCVD Furnaces	6-8 inch	± 5% across wafer, wafer to wafer 100Å- 2 µm thickness
BPSG Densification	Varian 5105	6-8 inch	5wt%B/5wt%P, densified ± 5% across wafer, wafer to wafer 100Å - 1 um thickness
LPCVD Poly/Nitride	Thermco furnace s Cantilever load Mactronics quartz Autoloader	1-8 inch	± 2% across wafer, wafer to wafer 100Å - 5000Å thickness Particles added 10 at 0.3 µm size
Sputter Deposition	Perkin Elmer 4410 Varian 5100 MRC Varian 5105	1-12 inch	± 5% across wafer, wafer to wafer 100Å - 2 µm thickness 50 different target materials Al/Si, Al/Cu, Al/Si/Cu, Si, Cu, Au SiO2, Si3N4, TiN, Ti, TaN, Ta, Cr, Mo, Pd, Ru, TiW, W, Al/Ta, CrO2,

			Ni, Pt, Ag, NiCr, Si, Ni/Fe, and other target materials.
CVD W	Varian 5150	6-8 inch	± 5% across wafer, wafer to wafer 100Å- 1 µm thickness
ECD Cu	Semitool	6-8 inch	Includes required PVD seed layer of Ta + TaN + Cu.
Lithography	SVG90 spin/develop		
LS-0.25/0.35	Cannon 2500 I3 Stepper	6-8 inch	Line space pattern 0.25/0.35 + reverse.
CSM		6-8 inch	Checkerboard pattern
LS-0.4µm		6-8 inch	Line space pattern 0.4µm
LS-0.5µm		6-8 inch	Line space pattern 0.5µm
LS-1.0µm		6-8 inch	Line space pattern 1.0 µm
CT-0.35µm		6-8 inch	Contact pattern 0.35µm
CT-0.4µm		6-8 inch	Contact pattern 0.4µm
CT-0.5µm		6-8 inch	Contact pattern 0.5µm
Etch oxide/ poly/nitride Aluminum	Plasmatherm	6-8 inch	same as above lithography

Delivery for sputtered films is 3-5 working days, for oxides 5-7 working days, for LPCVD & PECVD films 10-12 working days, and for lithography 12-14 working days. The lithography that I have quoted is all on our provided standard reticles, but we can use yours if applicable. All delivery is quoted after wafers were received. Also, please note that on sub 1 µm lithography, ultraflat wafers are required to achieve accurate CD control across the wafer.