

Current Status of EUVL Blank at AGC

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AGC Current Status and Comments

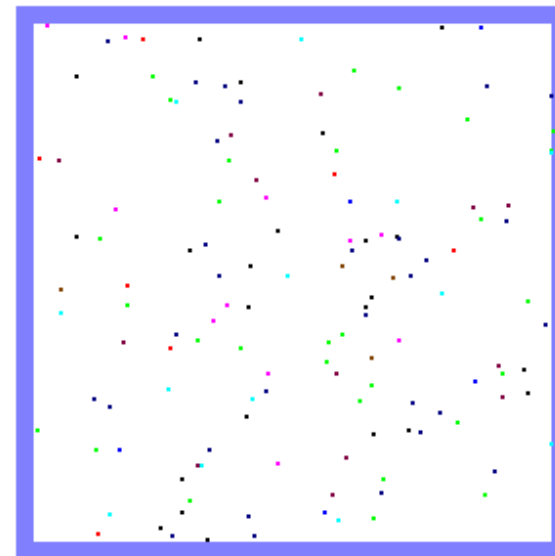
Parameter	AGC Current Status	Alpha (2005)		Beta (2007)			Gamma (2009)		
		Spec.	Comments	Spec.	Comments	AGC Comments	Spec.	Comments	AGC Comments
Added ML D.D. (defects/cm ²)	0.47	0.05	Veeco - SEMA.	0.01	Veeco - SEMA.	Challenging but Feasible	0.005	Veeco - SEMA.	New Process innovation required
Total ML D.D. (defects/cm ²)	0.57	0.3	Veeco - SEMA. best Sema commer (0.26)	0.03	Veeco & SEMATECH - North goals	Challenging but Feasible	0.003	SEMI P38-1103	New Process innovation required
Cut-off Size (PSL equivalent, nm)	82	80	Lasertec M1350	40	Lasertec Next Gen.	? ? ? ?	25	SEMI P38-1103	? ? ? ?
Peak Reflectivity (%)	67	>63.0	SEMA. Commercial	>65.0	Veeco - SEMA.	OK	>67.0	SEMI P38-1103	OK
Peak Refl. Unif. (%P-V) Absol.	0.3	< 0.90	Veeco - SEMA. Sema commer	< 0.70	Veeco - SEMA. Sema commer	OK	< 0.50	SEMI P38-1103	OK
Median Central λ Offset (nm)	0.01	< \pm 0.09	SEMA. Commercial	< \pm 0.075	SEMA. Commercial	OK	< \pm 0.06	SEMI P38-1103	OK
Reflected λ Uniformity (nm P-V)	0.03	0.08	SEMA. Commercial	0.07	SEMA. Commercial	OK	0.06	SEMI P38-1103	OK
Mask Nom. Image Size (4X)		120		100			90	ITRS 2004 (45nm HP)	
Mask Min Primary Size DLS(4X)		100		90			89	ITRS 2004 (45nm HP)	
IP (nm multi.)		12		11			10	ITRS 2004 (45nm HP)	
CD Unif. DLS (nm)		11		9			7.5	ITRS 2004 (45nm HP)	
Absorber LER		5		4			3	ITRS 2004 (45nm HP)	

Our current status on the defect

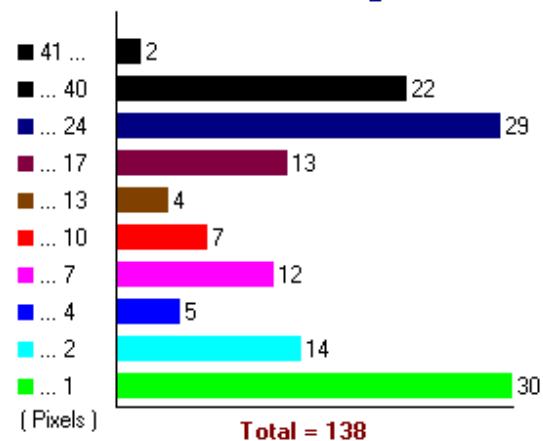
- An evaluation result with M1350

Adder : 0.47/cm²@80nm

- New coating tool has been installed in our work shop last month.
- Now we are adjusting it now.
- This is a really first data of our new coating tool without optimization.



Pixel Histogram



We believe that alpha (2 0 0 5) specifications can be attained by the end of this year.

AGC Status as of 2005E

Parameter	As of end of 2005	Alpha (2005)		Beta (2007)			Gamma (2009)		
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