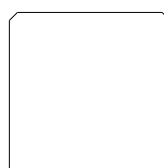


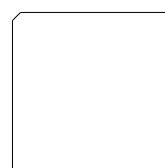
NANOFILM SPECIFICATION DATA SHEET

Substrate Dimensional Specifications

<i>Size Specifications</i>				
NOMINAL DIMENSIONS	INCHES		MILLIMETERS	
	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
2.5 x 2.5"	2.470	2.500	62.74	63.50
3.0 x 3.0"	2.970	3.000	75.44	76.20
4.0 x 4.0"	3.970	4.000	100.84	101.60
5.0 x 5.0"	4.970	5.000	126.24	127.00
6.0 x 6.0"	5.970	6.000	151.64	152.40
7.0 x 7.0"	6.970	7.000	177.04	177.80



LOW EXPANSION



WHITE CROWN

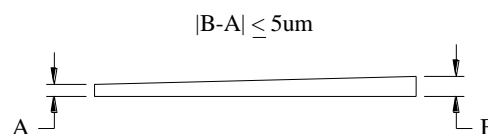


QUARTZ

NOTE: CORNER NOTCHES ARE FOR SUBSTRATE IDENTIFICATION ONLY AND DO NOT INDICATE A GOOD SIDE VERSUS A BAD SIDE.

<i>Thickness Specifications</i>				
NOMINAL DIMENSIONS	INCHES		MILLIMETERS	
	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM
0.060"	0.056	0.064	1.42	1.62
0.090"	0.086	0.094	2.18	2.39
0.120"	0.116	0.124	2.95	3.15

PARALLELISM SPECIFICATION



NANOFILM SPECIFICATION DATA SHEET

<i>Flatness Availability</i>				
NOMINAL DIMENSIONS	QZ		SODA LIME	
	μm/TOTAL SURFACE		μm/TOTAL SURFACE	
	MASTER	SUB MASTER	MASTER	PRINT
2.5 x 2.5"	2	5	5	10
3.0 x 3.0"	2	5	5	10
4.0 x 4.0"	2	5	5	10
5.0 x 5.0"	2	5	7	12
6.0 x 6.0"	2	5	7	12
7.0 x 7.0"	2	5	7	15

QUALITY GRADING	
QUALITY GRADE	DEFECT DENSITY
High	No pinholes at defect sizes >1μm with 90% probability
Standard	<0.05 defects/cm ² for defect size >1μm
Test (Limited Availability)	<0.1 defects/cm ² for defect size >1μm

QUALITY AREA

The Quality Area is defined as an area ½" smaller than the actual dimension of the plate (¼" in from the edges of both the front and back sides of the substrate).