



TOLERANCES AND CAPABILITIES IN GLASS OPTICS

Material	All glasses from SCHOTT and CDGM Catalog, Fused Silica, Pyrex, Float Glass, Quartz etc.		
Size	Dia 5 mm to 300 mm		
Optical Surfaces	Spherical		
Specifications Achieved	Specification	Commercial	High Precision
	Surface Irregularity	Less than 0.5λ	Less than $\lambda/10$
	Radius of Curvature	+/-0.5%	+/-0.1%
	Center Thickness	+/- 0.10 mm	+/-0.03 mm
	Centration Error	3 arc minutes	1 arc minute
	Diameter	+0.00, -0.02 mm	+0.00, -0.01 mm
	Focal Length	+/-1 %	+/- 0.5%
	Scratch/ Dig	40/20	20/10