

HIGH-END FINISHING

Dimensions [ISO 10110-1]			
Diameter	mm	6 - 300	
Tolerance		± 0.03	
Center thickness		< 60	
Tolerance		± 0.01	
Surface form [ISO 10110-1; 12]		geometry dependent up to	
Radius of curvature – local cc	mm % of Ø	15	
Clear aperture		90	
Clear aperture surface slope		75	
Surface form tolerances (ISO 10110-5) and Aspheric surfaces (ISO 10110-12)			
3/A (B, C) RMSi < D; slope < F; slope integration length = G; spatial sampling resolution = H; see also ISO 14999-4			
Tolerance of radius of curvature	% fringe (µm)	± 0.02	
Sagitta deviation – A (Power)		0.30 (0.08)	
Irregularity – B (PV)		0.30 (0.08)	
Rotational invariant irregularity – C		0.20 (0.05)	
RMS irregularity – RMS _i – D		0.10 (0.03)	
Slope tolerance – F / G / H		12 / 1 / 0.1	
Centration [ISO 10110-6] 4/ σ (L)			
Edge thickness variation (defines tilt angle)	µm arc min	5	
Tilt angle of the aspheric surface to the second surface – σ		0.35	
Lateral displacement of the aspheric to the edge of the lens – L		0.01	
Lateral displacement of the aspheric to the second surface – L		0.01	
Surface imperfections [ISO 10110-7; 5/ N x A; L N “ x A“]			
Dig – N x A ¹		2 x 0.04	
Scratches – L N “ x A“ ¹		L2 x 0.04	
MIL – Scratch / Dig		20 – 10	
Surface texture [ISO 10110-8]			
Surface roughness – Rq	nm	0.50	
Measurement			
Full-surface interferometric measurement		guaranteed	