

FABRICATION - COATING SERVICES

HOYA CORPORATION USA - Optics Division is dedicated to delivering superior performance optics with on-time delivery at a competitive price.

- **Materials - from cost effective to exotic**
- **Fabrication - from commercial to very high quality surface polish**
- **Coating - from a single layer to 100+ layers**

This unique capability not only provides flexibility, it provides total control of quality and delivery schedules. We can support your efforts from prototypes through production.

	Commercial Polish	High-end Polish	Super Polish
Dimensions & Tolerances			
Max Size	254mm x 304.8mm	254mm x 304.8mm	306mm diameter
Min Size	6mm	6mm	6mm
Length/Width Tolerances	±0.1mm	±0.05mm	±0.025mm
Max Thickness	10mm	10mm	12mm
Min Thickness	1.0mm	0.7mm	0.5mm
Thickness Tolerances	±0.1mm	±0.05	±0.025
Edge Quality			
Bevel	0.5 to 1.0mm	0.5 to 1.0mm	0.5 to 1.0mm
Edge Finish	Fine grind 180 mesh or finer	Fine grind 180 mesh or finer	Fine grind 180 mesh or finer
Edge Chips	<0.5mm	<0.1mm	<0.1mm
Surface Quality * * *			
S/D	80/50	20/10	<10/5
Flatness	1/2 wave per square inch	< 1/4 wave per square inch	1/8 wave per square inch
Parallelism	20 arc seconds	10 arc seconds	3 arc seconds
Wavefront	1/2 wave per square inch	1/4 wave per square inch	1/4 wave per square inch
Surface Roughness	Not measured	10 Angstroms Ra	< 5 Angstroms Ra

***Capability is dependent upon glass type, thickness and shape of part manufactured

**HOYA Corporation USA
Optics Division
3285 Scott Boulevard
Santa Clara, CA 95054**



**1-800-818-HOYA (4692)
Phone: 408-654-2200
Fax: 408-654-2270
www.hoyaoptics.com**

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HOYA's End-to-End solution offers a combination of optical glass or filter glass, fabrication capabilities in conjunction with coating expertise. Our coatings have excellent abrasion resistance and environmental durability. They meet or exceed all the physical and environmental requirements of MIL-C-14806A. Custom coating design services are also available to meet the specifications of your requirement.

Available Coatings	Description
AR: Anti-Reflection Coatings	R<0.2% Typical Customer specified wavelength and width
HEAR: High Efficiency Broad Band AR	Multi-layer broad band anti-reflection
BBAR: High Efficiency Ex-Broad Band AR	Multi-layer broad band anti-reflection with extended wavelength range
BBHR: Broad Band HR	Broad Band high reflection coating
ITO: ITO Coatings	Conductive coating; conductive multi-layer coating with high efficiency anti-reflection coating is also available
BP: Bandpass Filters	Fabry-Perot type bandpass filters; 350nm - 1800nm
EF: Edge Filters	Long-pass and short-pass filters
Custom Coating Design	UV - VIS - NIR

Note: Specifications subject to change without notice.