

Fabrication

Hoya Corporation USA - Optics Division is dedicated to delivering superior performance optics with on-time delivery at a competitive price. Our vertically-integrated facility, technical knowledge and expansive list of fabrication and inspection equipment enable us to provide our customers with true End-to-End solutions.

- ▶ 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.

CAPABILITIES

	<u>COMMERCIAL POLISH</u>	<u>HIGH-END POLISH</u>	<u>SUPER POLISH</u>
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	+/-0.05mm	+/-0.025mm
EDGE QUALITY			
BEVEL	0.5 to 1.0mm	0.5 to 1.0mm	0.5 to 1.0mm
EDGE FINISH	<ul style="list-style-type: none"> ▶ Fine grind 180 mesh or finer ▶ Edge polishing available for material thicker than 1.0mm 	<ul style="list-style-type: none"> ▶ Fine grind 180 mesh or finer ▶ Edge polishing available for material thicker than 1.0mm 	<ul style="list-style-type: none"> ▶ Fine grind 180 mesh or finer ▶ Edge polishing available for material thicker than 1.0mm
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

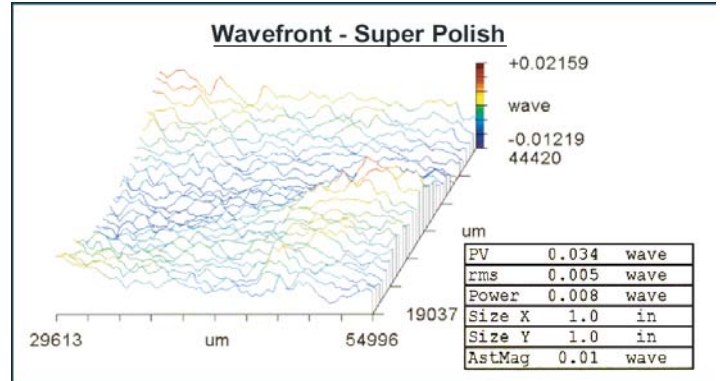
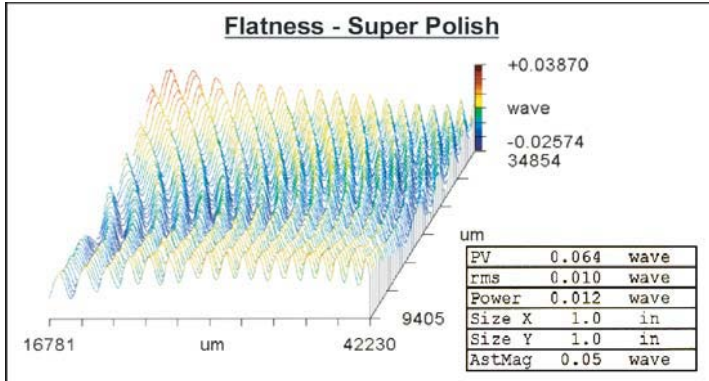
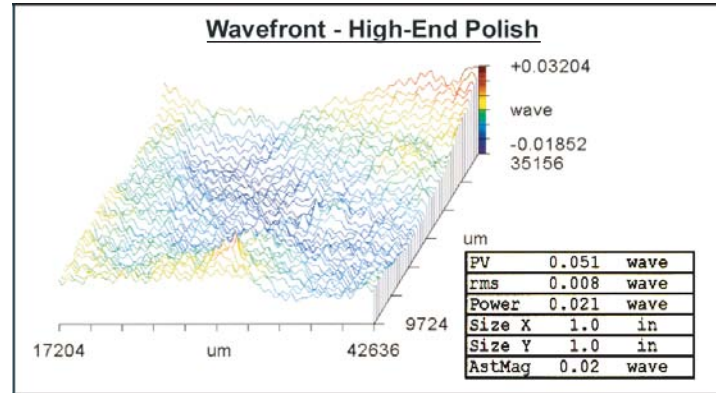
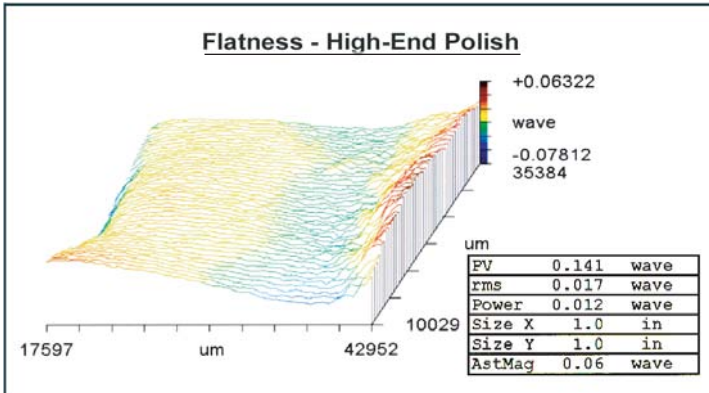
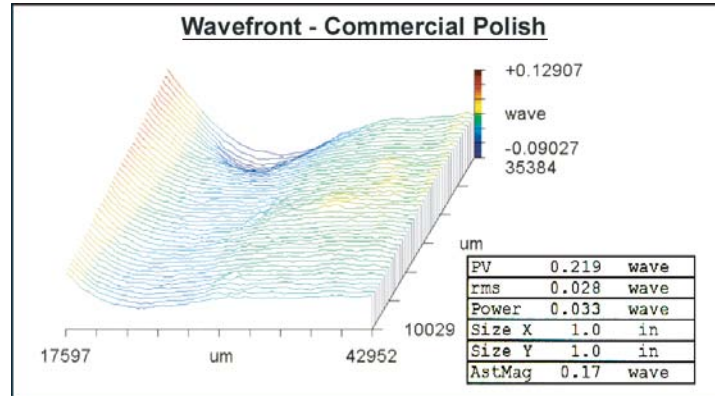
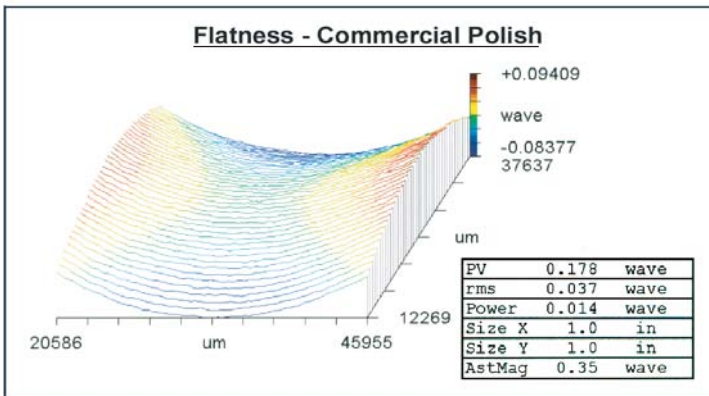
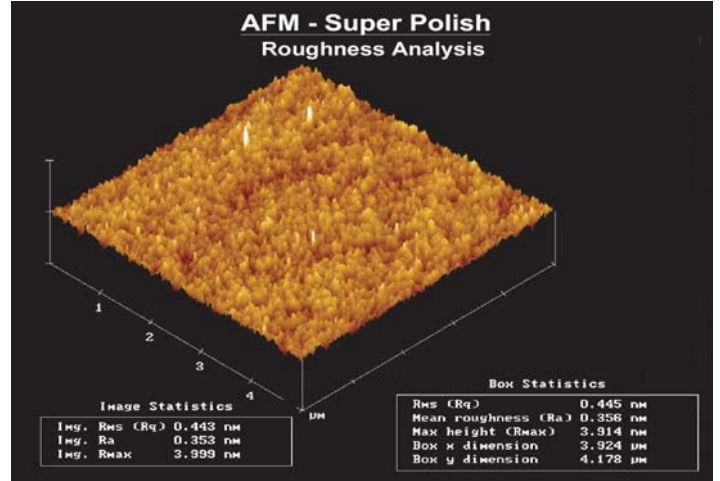
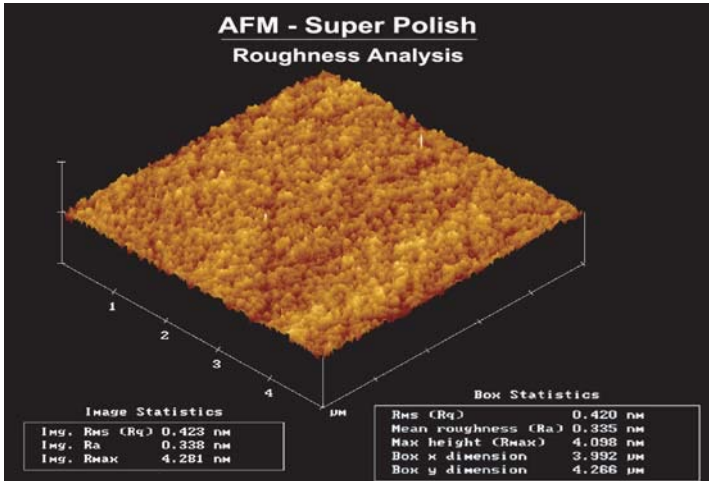
*** - Capability is dependent upon glass type, thickness and shape of part manufactured



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SURFACE QUALITY ANALYSIS



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