

# Aspheres by Corning

Performance improving precision to meet your toughest specifications.



CORNING



## Rely on Corning for Your Precision Aspheres

With over 40 years of experience in optical design, metrology and DUV and lithography inspection systems, Corning is uniquely suited to fabricate and qualify your most demanding precision Aspheres. Let our knowledgeable engineers and skilled manufacturing technicians assess your project. Corning is well positioned to provide a full range of optical products from materials and components to complex multi-element lenses and fully aligned opto-mechanical assemblies. Our customers value Corning's insights and solutions to their challenges.

## Meeting Requirements for Demanding Applications

- Material Choices – fused silica, calcium fluoride, optical glasses and more
- Diameters to 200 mm and more
- State-of-the-Art manufacturing capability
- DUV to IR applications

## Full Suite of Measurement Capabilities

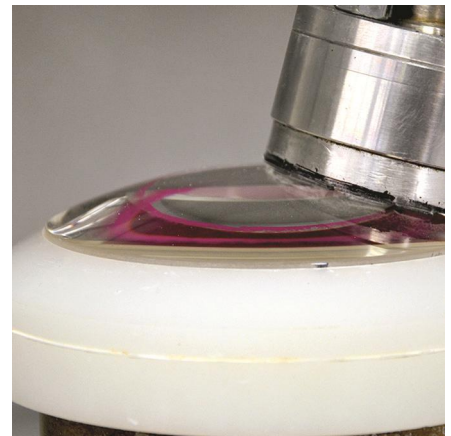
Corning's comprehensive measurement capabilities can provide the accuracy you require in a cost-effective manner. Leverage Corning's quality architecture and measurement tools to obtain the performance required:

- |                              |                      |
|------------------------------|----------------------|
| ■ Contact Stylus Profiler    | ~ 1.0 $\mu\text{m}$  |
| ■ Non-Contact Profiler       | ~ 0.1 $\mu\text{m}$  |
| ■ 2-D Surface Interferometry | ~ 0.03 $\mu\text{m}$ |
| ■ Proprietary TASP tool      | ~ 0.03 $\mu\text{m}$ |

# Specifications and Tolerance Limits

<u>Capability by Attribute</u>	<u>Units</u>	<u>Manufacturing Limits</u>
<b>Dimensional Tolerances</b>		
Diameter	mm	+0.000 / -0.002
Center Thickness	mm	+0.010 / -0.010
Radius	mm	< 1 fringe
<b>Mechanical Departures</b>		
Bevel Sags	mm	+0.000 / -0.002
Sag	mm	+0.000 / -0.002
Wedge	mm	+0.0005 / -0.0005
<b>Aspheric Profile Tolerances</b>		
Irregularity (PV)	fringes	0.05
Irregularity	nm	2
Slope	fr/mm	0.1
Profile	µm	< 0.025
<b>Features</b>		
Bevels	mm	0.3
Roughness	Å	2
Scratch-Dig		< 20-10

**NOTE:** Manufacturing specification limits are dependent on required diameters and departure from best fit spheres.



For more information about Corning's Asphere capabilities, please contact:

## CORNING

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