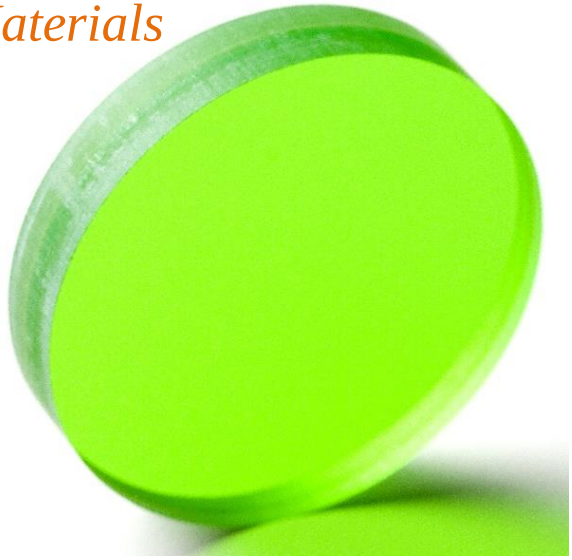
Optical Fabrication

IR Exotic Materials



Reynard Corporation has a full service, in-house optical fabrication facility designed to meet your precision optical requirements.

Shaping is performed on CNC Mills, semiconductor grade dicing saws, and optical edgers and then measured with highly accurate, calibrated hand tools and instruments. Surface finishing progresses from rough grinding through precision lap and spindle polishing to achieve highly accurate thickness, surface quality, and surface roughness. Bevels are added to reduce sharp edges and indiscriminate chipping.

Diamond turned spherical, aspherical, diffractive and freeform optical components are produced and measured in-house on compatible materials. Optics can be completed with Magnetorheological Finishing (MRF) and measured with contact or non-contact instruments.

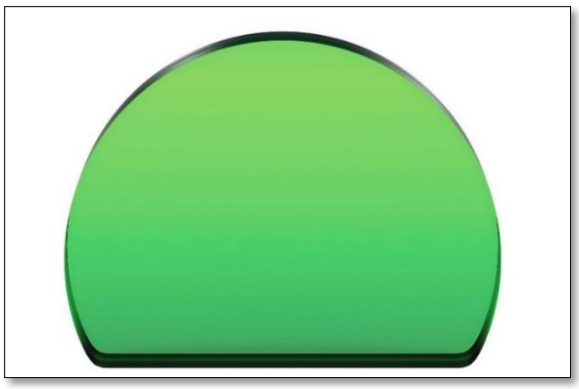
We process a variety of optical materials from popular visible and UV materials such as borosilicate, fused silica, and colored glass to infrared materials including Germanium, Silicon, Zinc Selenide, and multi-spectral Zinc Sulfide. We also are familiar with working on a variety of exotic crystals and chalcogenide materials for use in the 1 to 16um (SWIR, MWIR, & LWIR) wavelength regions.

Contact us regarding your volume, one-off, or exotic optical fabrication requirements.

CAPABILITIES

- IR Materials
- Polishing: 1/20 wave
- Grinding: 1mm to 450mm
- Beveling: down to a few thousands of an inch
- Core Drilling: glass, metals and ceramics
- Edging: a few ten thousandths of an inch
- Wafer Dicing: automated for precision & accuracy
- Lap & Spindle Polishing
- Miniature to Over 30” Diameter
- Stacking and Bonding
- Precision Flats, Plano Elliptical and Spherical
- Diamond Point Turning
- Magnetorheological Finishing (MRF)
- Contact & Non-Contact Measuring
- Visible Interferometry

By customizing your thin-film coating needs, Reynard Corporation can realize the ideal optic for your application. All manufacturing is done in-house for improved quality, ease of communication and innovative customization.



MATERIALS:

ALON	Germanium (Ge)
AMTIR 1-5	Indium Phosphide (InP)
Barium Fluoride (BaF2)	Magnesium Fluoride (MgF2)
Borosilicate (N-BK7)	Mercury Cadmium Telluride (MCT)
Calcium Fluoride	Sapphire (Al2O3)
Ceramics	Silicon (Si)
Crystals	Zinc Selenide (ZnSe)
Fused Silica (SiO2)	Zinc Sulfide (ZnS) / Cleartran
Gallium Arsenide (GaAs)	And more…

Contact us today to see how we can help YOUR system achieve the highest level of performance!

GENERAL CAPABILITIES:

- ISO 9001:2015 Certified
- ITAR Registered
- Cybersecurity Compliant (CMMC)
- Magnetorheological Finishing (MRF)
- UV-VIS, NIR, IR
- Freeform Optical Designs
- Precision Flats, Plano/Plano, Elliptical & Wedge
- Diamond Point Turning
- Full Manufacturing Traceability
- MIL-PRF-13830B
- MIL-C-48497A
- ISO 10110
- In-House Environmental Testing
- Made in USA

reynardcorp.com
(949) 366-8866 • sales@reynardcorp.com
1020 Calle Sombra, San Clemente, California, 92673 USA