

DEPOSITION SCIENCES, INC.

A LOCKHEED MARTIN COMPANY

THIN FILM COATING SOLUTIONS

DSI produces a variety of highly reliable, durable, and heat-resistant custom optical coatings. Our exclusive technologies and custom deposition chambers offer coatings from the visible (VIS) through the midwave infrared (MWIR).

In addition to offering standard products, we work in close collaboration with our customers to develop innovative coatings that achieve specific performance requirements. Known for our strong engineering services, we seek to understand your needs and provide creative solutions for real-world applications.

DSI serves many markets and industries with our filters, flexible materials, and patterned aperture coatings (dark mirrors):

Satellite
Military
Aerospace
Defense

Space
Sensing
Autonomous
ISR

COATING TYPES

Low Observables	Sunshade® Thermal Control Film
Patterned Apertures	VIS, SWIR, MWIR Filters
Notch Filters	Cold Filters
Bandpass Filters	Absorbing Coatings (Dark Mirrors)
Beamsplitters	Shortwave/Longwave Pass Edge Filters

Optical coating wavelengths range from 400 nm to 5 μ m

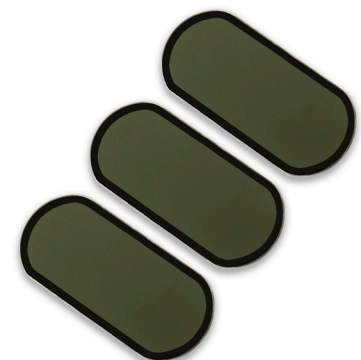
FEATURES

Custom Optics

- Custom Single and Multiband Bandpass, Edge and Notch Filters
- Coating materials covering VIS, SWIR, and MWIR
- Patterning capability for multispectral coatings, fiducials, apertures

Typical Substrates (up to 4" diameter)

- Optical Glass
- Fused Silica
- Silicon
- Al₂O₃/Sapphire
- n-BK7
- Germanium

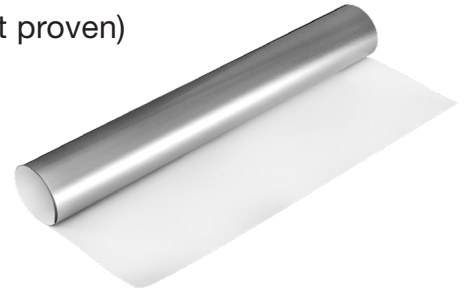


Flexible Coatings

- High performance coatings generated in a batch process
- Maximum physical size is 30-inches by 120-inches
- Lightweight
- Sunshade® Thermal Control Material (Space qualified and flight proven)

Typical Flexible Substrates

- Polyimide
- Fluoropolymers
- Polyetherimide
- Polyester (PET)
- Polycarbonate
- Polyethylene
- Naphthalate (PEN)



SERVICES

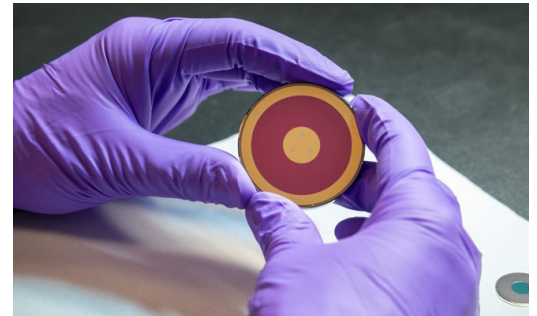
DSI has the expertise to participate at any level of your product development. From engineering to prototyping to full-scale manufacturing, we will work with you to develop practical specifications, designs, and manufacturing techniques to meet your requirements.

TEST AND MEASUREMENT

Quality testing capabilities include measurement of in-house produced products. Our quality system is ISO 9001:2015 certified. A portion of our test and measurement capabilities are summarized below:

Spectral Measurement Capabilities

- Reflectance and Transmittance
- Spectral Range 0.190 – 50 microns
- Multiple Angles of Incidence
- Temperature Range 15K to 335K
- Polarized Measurements (S&P)
- Hemispherical Transmittance and Reflectance (0.2 – 2.5 microns)



Environmental Testing

Environmental Testing can be performed in accordance with various military specifications, including MIL-C-48497 and MIL-F-48616.

- Humidity
- Abrasion
- Adhesion
- Salt Fog
- Temperature Cycling
- Solubility & Cleanability

Physical

- Flatness, Reflected Wavefront Error, & Transmitted Wavefront Error on up to 4" diameter samples
- Surface Quality
- Dimensional Verification
- Surface Resistivity
- Surface Roughness



Please refer to our other datasheets for more detailed information.