

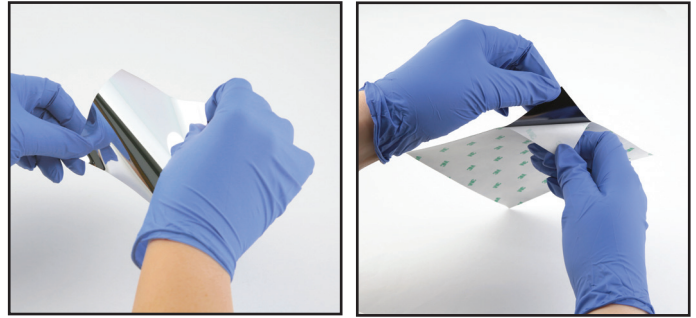
# DEPOSITION SCIENCES, INC.

A LOCKHEED MARTIN COMPANY

## SUNSHADE™ TAPE

### As a Flexible Optical Solar Reflector (FOSR)

Technical Data Sheet



## PRODUCT DESCRIPTION

### Revolutionizing Spacecraft Thermal Control with Sunshade™ Technology

In the competitive space industry, the quest for innovative solutions to thermal control has taken a leap forward with the DSI's Flexible Optical Solar Reflector (FOSR) solution, Sunshade Tape. Designed for excellence, Sunshade Tape redefines performance, durability, and value for spacecraft and satellite applications.

Traditional Optical Solar Reflectors (OSRs) made from bonded glass, while offering exceptional optical properties (alpha/epsilon), come with high manufacturing and integration costs and risk of damage during installation. Our Sunshade Tape is a breakthrough alternative. Engineered to withstand the harsh realities of in-orbit environments, this next-generation technology has equivalent optical properties of OSRs while offering a more robust and cost-efficient solution.

With a 3M966 Pressure Sensitive Adhesive (PSA) backing, application of the Sunshade Tape is easier and much less labor intensive than traditional OSRs.

Where other flexible alternatives, such as metal on polymer Second Surface Mirrors (SSMs), have performance degradation issues in MEO and GEO orbits, our Sunshade Tape emerges as a proven champion with negligible change in performance from Beginning of Life to End of Life.

Say goodbye to fragile, costly solutions, and embrace the future of space innovation with the FOSR Sunshade Tape—the smarter, stronger, and more dependable alternative.

We currently offer two types of Sunshade Tape in 4"x30" & 6"x30" sizes:

- -1002 Thermal Control Grade High Reflectance
- -2002 (Next Gen) Thermal Control Grade High Reflectance

Custom cut sizes & shapes are available upon request.

## APPLICATIONS

Satellite and spacecraft buses, radiators

## BENEFITS

- Manages solar heat gain of satellite communications equipment and components
- Manufactured using proven space-qualified materials
- Tuned for Air Mass Zero (AM0) solar irradiation
- Resistant to GEO radiation rich environment

## FEATURES

- Flexible and conformable tape that can be applied flat or as wrap
- A proprietary combination of non-metallic, low insertion loss materials
- Space-qualified and flight-proven
- Performance is resistant to degradation due to temperature cycling

## TECHNICAL INFORMATION

	Sunshade Tape
Solar Reflectivity, 250-2500 nm	≥ 86%
Solar Absorption	≤ 0.14
Hemispherical 300K Emissivity	≥ 0.80*
Weight	~.028 lb/ ft2 (with PSA)
Thickness	0.0045" (with PSA)
ESD Resistance	2.5E5 to 1.0E9 Ohm/square

\*performance as mounted on chromated aluminum