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Certified Set of 4, Spectralon® White and Grayscale Diffuse Reflectance Standards (99%, 75%, 50%, and 2%)



#56-078 - Set of 4 Reflectance Standards (99%, 75%, 50%, and 2%)



Stock #13-513 **2 In Stock**

⊖ 1 ⊕ £1,596⁰⁰

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Product Downloads

General

Premium Wooden Case Included **Note:**

Yes **NIST Certification:**

Housing Material:

Delrin

Physical & Mechanical Properties

0.55 **Thickness (inches):**

1.5 **Diameter (inches):**

1.25 **Reflective Area Diameter (inches):**

Optical Properties

White and Grayscale **Color:**

99, 75, 50, 2 **Nominal Reflectance (%):**

Material Properties

Spectralon® **Reflective Material:**

Environmental & Durability Factors

-80 to 350 **Operating Temperature (°C):**

5% - 95% **Operating Relative Humidity:**

Regulatory Compliance

[Compliant](#) **RoHS 2015:**

[Compliant](#) **Reach 209:**

[View](#) **Certificate of Conformance:**

Product Details

- Suitable for Spectroscopy, Colorimetry, Radiometry, and Machine Vision Applications
- Diffuse Reflectance Independent of Viewing Angle
- Durable, Stable, and Washable
- Serialized Version with NIST Traceable Calibration Certificate and Data Available

The Spectralon® White, Grayscale, and Color Diffuse Reflectance Standards exhibit near perfect Lambertian surfaces, making them extremely consistent, reproducible, and independent of viewing angle. They can be used as reference standards for a variety of industrial, laboratory, and field applications such as transmission/reflection/absorption spectroscopy, sensor linearity characterization, colorimetry, radiometry, and machine vision applications. Specifically, they are suitable for the calibration of colorimeters, spectrometers, spectrophotometers, reflectometers, densitometers, integrating sphere systems, camera and imaging systems, remote sensing systems, proximity sensors, and other optical or photographic equipment. The Spectralon® White, Grayscale, and Color Diffuse Reflectance Standards each display different aspects that make them ideal for a range of applications.

The White (99%) Standards are spectrally flat to $\pm 1\%$ over the photopic region and maintain $\pm 4\%$ for the entire wavelength region of 250 to 2500nm. The Grayscale Standards have their respective nominal reflectance values. The Color Standards can be used for lighting and color reproduction applications such as display, textile, ink, and paint manufacturing, and they exhibit extremely gradual color shift with changing temperature that can be easily quantified and corrected. With the optional NIST Traceable Calibration Certificate and Data, the Diffuse Reflectance Standards transform into absolute standards with certified traceable data. The calibration certificate reports data in 50nm intervals, while data file included in the USB thumb drive reports in as fine as 1nm intervals. The White and Grayscale Standards are calibrated from 250 to 2500nm wavelengths, while the Color Standards are calibrated from 350 to 850nm and come with additional data in tristimulus values, chromaticity coordinates, UCS coordinates, CIELAB color space coordinates, and CIELUV color space coordinates.

All diffuse reflectance standards are durable, thermally and chemically stable, and washable. They retain uniformity and integrity despite exposure to harsh environments. All standards come mounted in a durable Delrin housing with a protective cover, while the sets include a dedicated premium wooden storage case with soft padding offering 8 storage slots.