middleton research

PRODUCT SHEET
MRC-910-LIN8
MRC-910-LIN6

Sealed Linearity Standard Sets

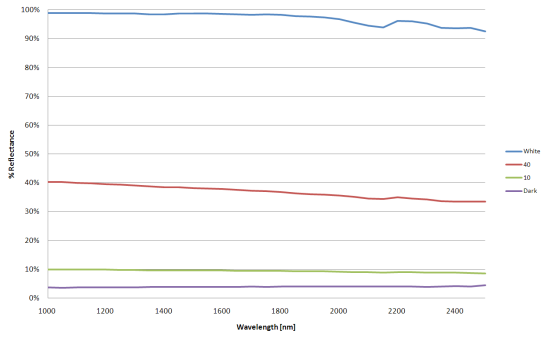
Sealed Linearity Standard Sets

Traceable linearity standards are used to calibrate spectrophotometers in regulated industries. They can be used to make corrections to the photometric scale. The set of standards consists of 6 or 8 diffuse reflective disks with reflectance values ranging from approximately 99% to 2% and have calibrated spectra in the NIR wavelength region. The disks are sealed and contain a blend of polytetrafluoroethylene and charcoal powders. The certification package includes a table of values, certificate, and spectra. The standards are delivered in a protective wooden case.

The sealed standards have advantages over comparable sintered PTFE standards. Sintered standards are exposed to changes in lab atmosphere and could get dirty with use. By sealing the standards with a glass window, they are better protected from environmental changes.

The linearity standard sets include the following standards:
6-piece set: white, 80%R, 40%R, 20%R, 10%R, and dark
8-piece set: white, 80%R, 60%R, 40%R, 20%R, 10%R, 5%R, and dark

The calculated example spectra of a few of the standards are shown below. The reported spectra are the reflectance of the material without the effect of the window.



Traceability

The NIR linearity standards are measured in comparison to an NRC Traceable calibrated sintered PTFE plaque (S/N PO2115).

NIR linearity and wavelength standard kit, including sealed standards of the following nominal reflectance values: white (approximately 99%), 40%, 10%, and dark (under 5%) and a wavelength standard. Standards are delivered in a protective wooden case.

Specifications

Size: 2.25" diameter x 0.6"
Optical area: 1.65" (41.8 mm) diameter
Protective window: BK-7 glass
Wavelength range: 1000 - 2500 nm (NIR / SWIR)
Recommended operational temperature: Room temperature
Maximum temperature: 60 °C.

Recertifications

Recertification service is offered by Middleton Research. It is recommended that the recertifications be made yearly after the initial expiration date, which is 18 months. It takes a maximum of 10 business days to perform the recertification. One day turnaround expedited recertification can be requested.

Specifications and Ordering Information

MRC-910-LIN8	Sealed linearity standard set (white, 80%, 60%, 40%, 20%, 10%, 5%, dark)
MRC-910-LIN6	Sealed linearity standard set (white, 80%, 40%, 20%, 10%, dark)
MRC-910-LIN-RC	Recertification of linearity standard sets
MRC-910-HSI-VAL	Near-Infrared Linearity and Wavelength Standard Kit (white, 40%, 10%, dark, 1920x-40)