

REFALON™ Metrology Consortium

REFALON™

Spectrophotometry Calibration Standards Division

Metrology-Grade Calibration Standards for Spectrophotometers and Microplate Readers

NIST-Traceable • ISO/IEC 17025 Accredited

ISO Guide 34 AND ISO 9001 compliant • Manufactured in the Netherlands and Canada

REFALON™ - The Excellence Of Metrology

REFALON™ Metrology Consortium combines expert-level knowledge and experience of leading European and North American scientists in the fields of metrology and spectrophotometry

For more than 40 years

we have been developing spectrophotometry reference materials for advanced applications

For over 20 years

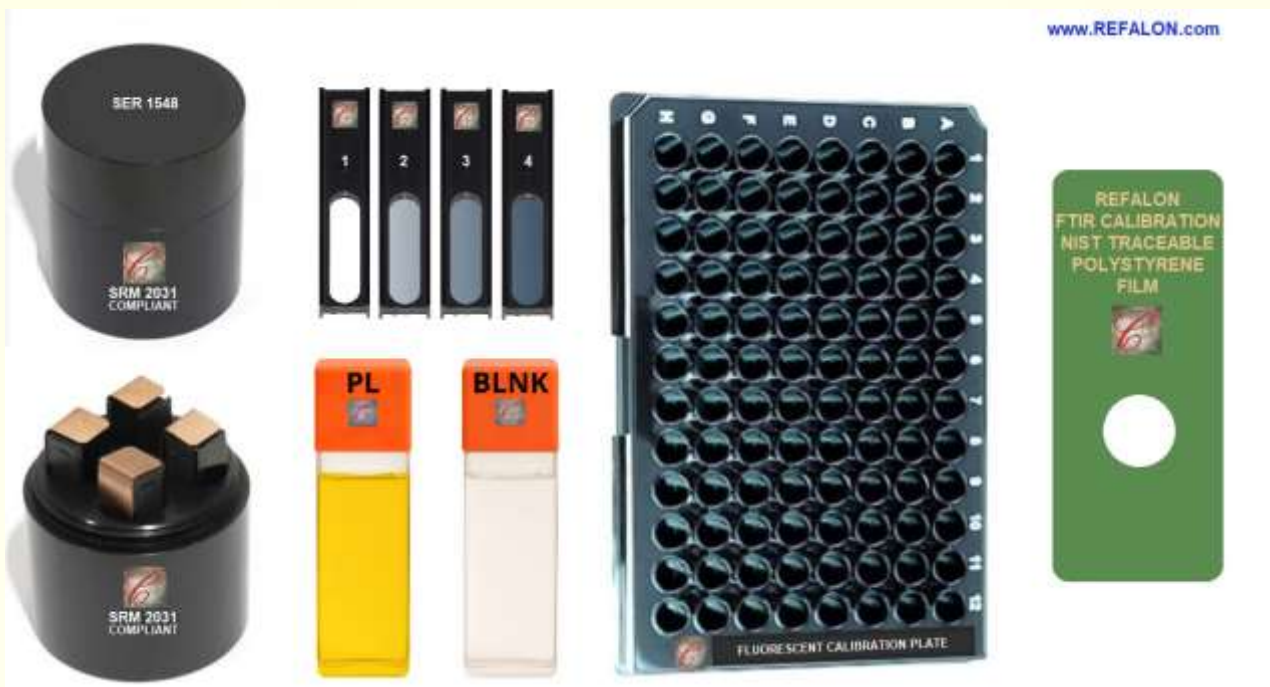
our selected reference materials have been made available to the commercial market

Our Locations

European Representative Amsterdam, Netherlands Tel: +31(0)20-369-1738 Email: EU@REFALON.com	Canadian Representative Ottawa, ON, Canada Tel: +1-613-319-7933 Email: Canada@REFALON.com	USA Representative Cheyenne, WY, USA Tel: +1-307-201-8588 Email: USA@REFALON.com
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General Appearance of Calibration Standards



We offer substantial discounts to new customers

Please contact us for more information



Photometric Accuracy Calibration Standards

NIST-compliant and NIST-traceable **Photometric Neutral Density** calibration standards are calibrated in ISO/IEC 17025 accredited facilities.

Conformance:

NIST SRM 930e, 1930, 2930, 2031a/b/c

Wavelength ranges:

400–700 nm (**VIS**), 200–700 nm (**UV-VIS**), 700–3000 nm (**NIR**), 200–3000 nm (**UV-VIS-NIR**)

Nominal Transmittance values:

0.01T to 90 %T (**24 options**).

Price:

Starting from €600.00 EUR. **We offer substantial discounts to new customers.**

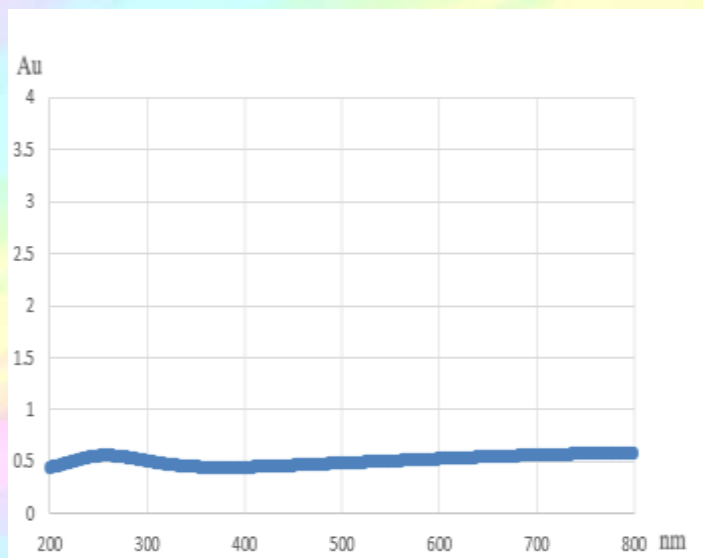
Optional Version:

Enclosed in 96-well microplate (+€100)

Part Number Syntax Examples:

REF-VIS-30T; REF-UV-VIS-50T-96well

General appearance and absorbance curve of a Photometric Accuracy Calibration Standard



Photometric Linearity Calibration Standards

NIST-compliant and NIST-traceable **Photometric Linearity** calibration standards are calibrated in ISO/IEC 17025 accredited facilities.

Conformance:

NIST SRM 1935

Standard Calibration Wavelengths:

235nm, 257nm, 313nm, 359nm, and 430nm

Nominal Concentrations:

20mg/L to 600mg/L (**16 options**)

Metrology Optical Materials:

Potassium Dichromate in Perchloric Acid

Price:

Starting from €800.00 EUR. **We offer substantial discounts to new customers.**

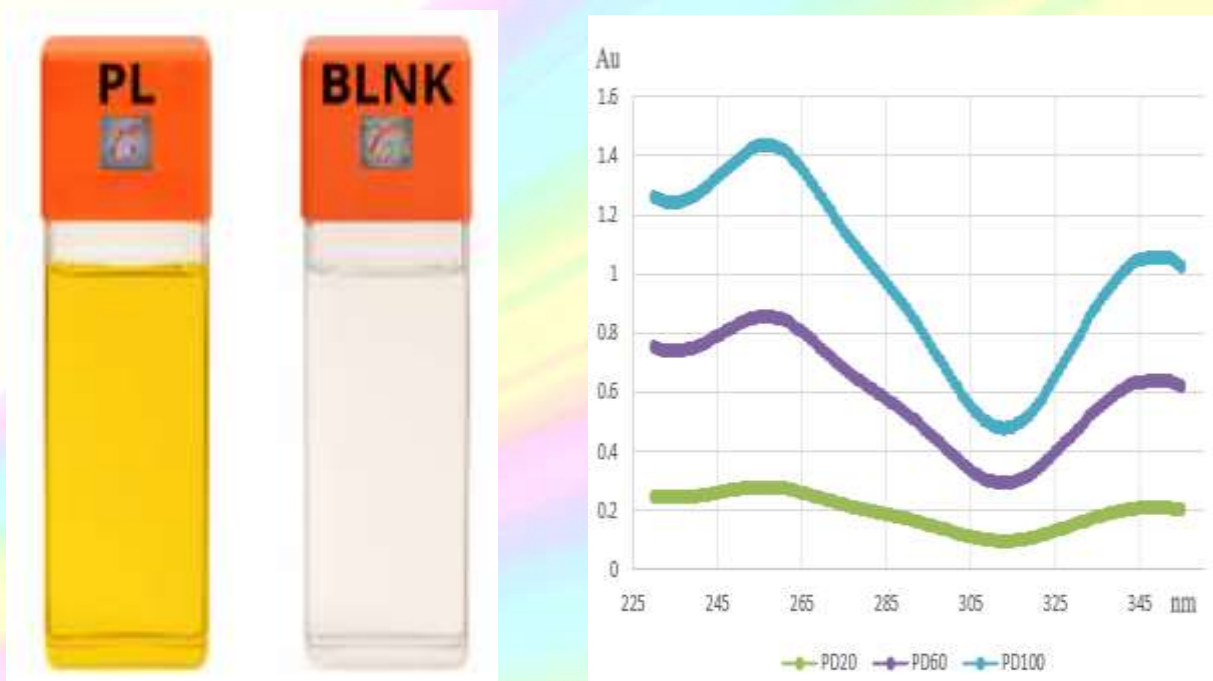
Optional Version:

Enclosed in 96-well microplate (+€100)

Part Number Syntax Examples:

REF-PL-20mg/L; REF-PL-60mg/L-96well

General appearance and absorbance curve of a Photometric Linearity Calibration Standard vs a Blank



Wavelength Accuracy Calibration Standards

NIST-compliant and NIST-traceable **Wavelength Accuracy** calibration standards are calibrated in ISO/IEC 17025 accredited facilities.

Conformance:

NIST SRM 2009, 2010, 2013, 2014, 2032,

Nominal Wavelength ranges (6 options):

240–635 nm (**UV-VIS**), 400–750 nm (**VIS-NIR**), 240–750 nm (**UV-NIR**), 200–3000 nm (**UV-VIS-NIR**)

Optical Materials:

Holmium Oxide Solution, Holmium Glass, Didymium Glass, Proprietary Solid-State

Price:

Starting from €600.00 EUR. **We offer substantial discounts to new customers.**

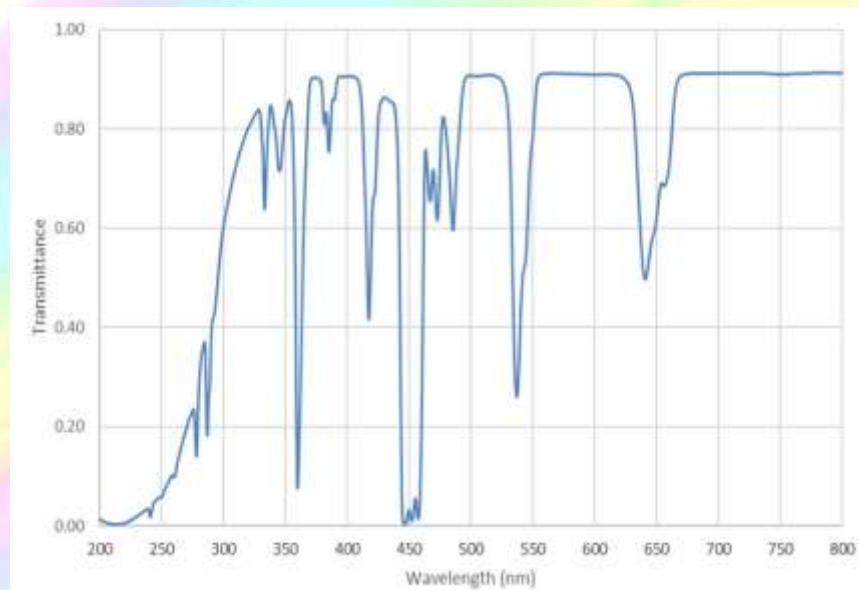
Optional Version:

Enclosed in 96-well microplate (+€100)

Part Number Syntax Examples:

REF-W-UV-VIS; REF-W-UV-VIS-NIR-96well

General appearance and absorbance curve of a Wavelength Accuracy Calibration Standard



Stray Light Validation/Calibration Standards

NIST-compliant and NIST-traceable **Stray Light** validation/calibration standards are calibrated in ISO/IEC 17025 accredited facilities.

Conformance

NIST SRM 2034

Nominal Cut-Off Wavelength:

200, 205, 227, 260, 326, 391 nm

Note: **Custom** cut-off wavelengths (**52 options**) available in **UV, VIS, and NIR**. Please contact us for more information.

Optical Materials:

Per EU, US, and Canadian **Pharmacopoeias**

Note: Proprietary optical materials used for **Custom** cut-off wavelengths stray light reference materials

Price:

Starting from €835.00 EUR. **We offer substantial discounts to new customers.**

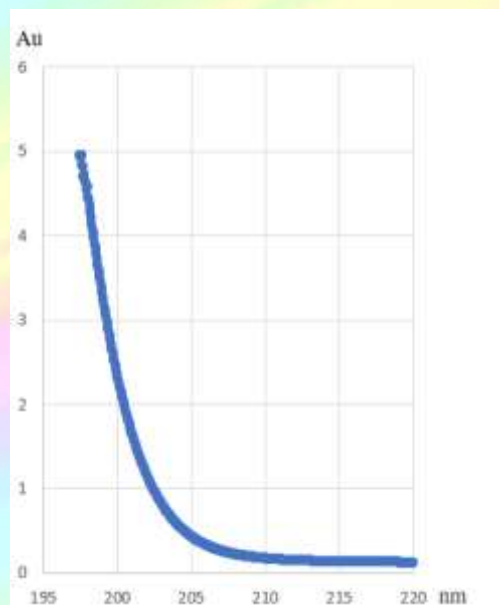
Optional Version:

Enclosed in 96-well microplate (+€100)

Part Number Syntax Examples:

REF-SL-200; REF-SL-391-96well

General appearance and absorbance curve of a Stray Light Calibration Standard



Spectral Bandwidth Resolution Validation/Calibration Standards

NIST-compliant and NIST-traceable **Spectral Bandwidth Resolution** validation/calibration standards are calibrated in ISO/IEC 17025 accredited facilities.

Conformance

Per EU, US, and Canadian **Pharmacopoeias**

Nominal Operating Wavelength Range:

265-272 nm

Standard Spectral Bandwidth Range (option 1): 0.5nm – 3nm

Expanded Spectral Bandwidth Range (option 2): 0.1nm – 5nm

Custom spectral bandwidth range resolution validation/calibration standards available in **UV, VIS, and NIR**. Please contact us for more information.

Optical Materials:

Toluene in Hexane and Hexane Blank, per EU, US, and Canadian **Pharmacopoeias**

Note: Proprietary solid-state optical materials used for **Expanded Spectral Bandwidth** validation/calibration reference materials

Price:

Starting from €835.00 EUR. **We offer substantial discounts to new customers.**

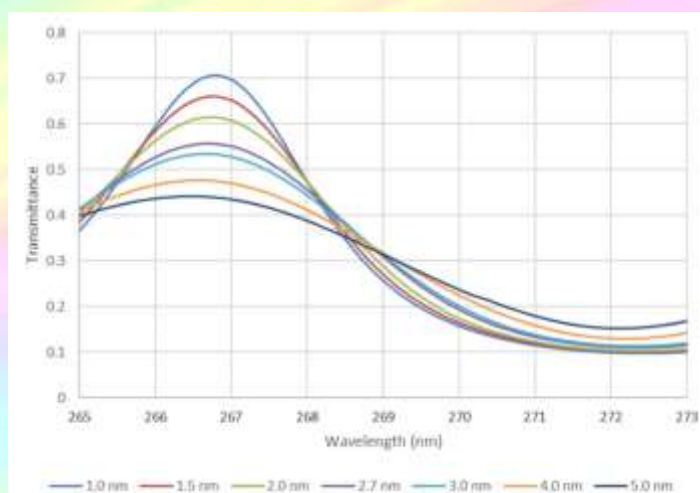
Optional Version:

Enclosed in 96-well microplate (+€100)

Part Number Syntax Examples:

REF-SB-0.5-3; REF-SB-0.1-5-96well

General appearance and transmittance curve of a Spectral Bandwidth Resolution Calibration Standard



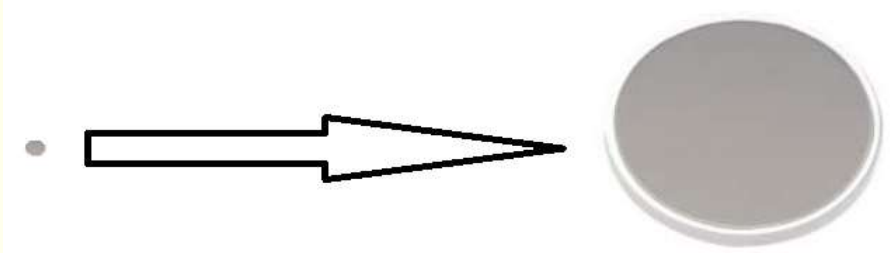
Pharmacopoeia calibration kits and Custom Calibration Standards

NIST-compliant and NIST-traceable EU, Canadian, US Pharmacopoeia calibration kits and **Custom Metrology-Grade** calibration standards are calibrated in ISO/IEC 17025 accredited facilities. **We offer substantial discounts to new customers.**

Over the years, we have manufactured **thousands of custom calibration standards** for our customers. **Please do not hesitate to contact us with your needs.**

An example of our custom product:

3mm-diameter (!) UV-VIS Photometric Accuracy Calibration Standard



Attention:

Sales of some items and services require an Export Permit.
Please contact us for more information.

