



CALIBRATING PROTOCOL

We guarantee that the **Secondary Calibration Standards**

with **Serial No.: 104**

were calibrated against normals which precision is based on national or international normals or was reached by derivation from calibrating techniques.

The secondary calibration standards consists of the standards A, B, C und D. Standard A is used for the setting to zero.

The readings of the standards were determined in a calibrated spectral photometer at the wavelength 546 nm. They are shown in absorbance.

Standard	Absorbance
A104	0.000
B104	0.272
C104	0.581
D104	1.146

Permitted deviation:

The tolerance of the given values is ± 0.007 absorbance.

The permitted deviation consists of the tolerance of the reference spectral photometer, the reproducibility of the readings, and an estimated part of the possibly systematic fault.

**Performance:**

The spectral photometer is set to the wavelength 546 nm.
The operation mode of the spectral photometer is set to absorbance.
With standard A the photometer is set to zero.
Successively the standards B, C and D are measured.

Reference device:

For these comparison measurements the following reference device was used:

Spectral Photometer Zeiss PM 6 / Serial No. 135304 / Check No. PR-309

The reference device is exclusively used for quality control. This device itself is subject to regular controls in the course of our serial production. The last calibration of the reference device was carried out on **June 28, 2016**. For this calibration a MAASSEN **secondary standard for the check of spectral photometers** is used (last certification by MAASSEN on **June 10, 2015**).

Checked device: Secondary Calibration Standards
Serial No: 104
Manufacturer: ROBERT RIELE GmbH & Co KG, 13467 BERLIN, GERMANY
Date of calibration: March 16, 2017
Number of pages: 2

SAMPLE

The user of this device is responsible for the repetition of the calibration within an adequate period.
This certificate may only be processed completely and unchangedly.
Calibrating protocols without signature are not valid.

ROBERT RIELE GmbH & Co KG fulfills the quality standard DIN EN ISO 13485.

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