Palintest
Water Analysis Technologies

Use of NDF Check Standards

Photometric Testing

PRODUCT SUPPORT INFORMATION

02/2022

NDF (neutral density filter) check standards have known and certified transmittance or absorbance values, so they should return these known values when read in a photometer.

Check standards are used to determine if an instrument is still within calibration. If the instrument is passing check standards, then this confirms it is performing within specification and therefore does not require recalibration. This is true as long as the check standards are within their expiry date, are the correct check standards for the instrument being tested and are in good condition.

Check standards do not recalibrate the instrument, this is a highly technical process which is carefully controlled. To recalibrate your instrument, it must be returned to Palintest.

Calibrating Palintest Photometers

Palintest calibrate photometers using certified colour standards that are traceable back to national standards.

The certified standards are prepared by our Quality Control team in our laboratory using traceable chemicals, externally calibrated balances and are produced in small batches. This ensures the traceability chain is maintained throughout the production process.

The standards are then characterised by transmittance (%T) at a particular wavelength using an externally calibrated dual-beam spectrophotometer. The spectrophotometer is calibrated using the NPL/ NIST standards.

During the manufacturing of photometers, the instruments are calibrated to read the correct %T at the wavelengths available on that photometer. The method of calibrating our photometers using the certified traceable standards forms part of the ISO 9001 business management system within Palintest and thus is fully audited.

It is important to note that these standards don’t actually calibrate the instrument, they are used to check that the instrument is still performing within specification.