

Transmission Standards Quick Reference Guide

About the Transmission Standards

The transmission set contains one each of the following serialized samples:

- An NG11 absorbing optical glass reference. NG11 glass produces a spectrum with absorption bands that have different relative intensities over a broad spectral range. Selected bands can be used to verify the instrument linearity.
- A 1.5 mil polystyrene reference. Polystyrene has defined absorption bands which can be used to verify wavelength accuracy in the mid-infrared spectral range (4,000 to 400 cm^{-1}).

Storage and Expiration of the Standards

If the samples are properly handled and stored, the sample measurements are accurate, within the specified measurement uncertainties, for the following period:

- Samples mounted on a wheel are accurate for five years from the date of issue shown on the wheel.
- Card-mounted samples are accurate for two years from the date of issue shown on the card.

To prevent contamination of the sample, do not allow it to contact chemicals or your skin. Degradation or contamination of the sample could affect the qualification results. To verify accuracy, we recommend annual re-qualification of the instrument and the standard (see the Installation Re-Qualification manual for the spectrometer for instructions).

When not in use, card-mounted samples must be stored in their original UV-protective case and the case stored in a dark place at room temperature. Samples mounted on a wheel must be stored in a serviced and functioning Thermo Scientific FT-IR spectrometer.

Note Improper use or care of the instrument, or improper maintenance of the instrument, may cause permanent damage to the standards wheel.

Samples mounted on a wheel must be replaced after five years from the date of issue. Because card-mounted samples are handled regularly and, therefore, exposed to potential contamination, damage and degradation, they must be replaced after two years from the date of issue.