



JASCO CERTIFIED ATR STANDARD

N°J379/2023

The ATR Validation Standard is a flexible silicone material with certified values intended for use in calibrating the ATR accessory of spectrophotometers in the infrared (IR) spectral region from 500 cm⁻¹ to 4000 cm⁻¹).

ATR Validation Standard is certified on a Jasco FT/IR-4X Series Spectrometer – serial number A018362111 which has been calibrated with NIST certified polystyrene film (SRM-1921b), which is the NIST primary standard.

The instrument room temperature was maintained at 23 °C ± 1 °C and the humidity ranged from 30 % to 50 % during the measurements.

Standard Identification:

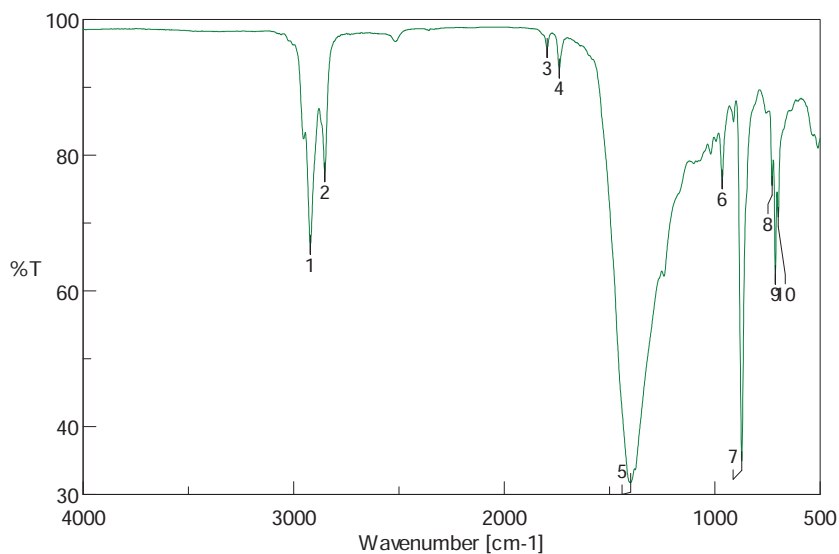
TAG: **ATR-02**
Description: **ATR Validation Standard**
Serial Number: **314532**

Parameters used in this measurement:

Light source	Standard
Detector	TGS
Accumulation	64
Resolution	4 cm ⁻¹
Zero filling	On
Apodization	Cosine
Gain	Auto (4)
Aperture	Auto (7 mm)
Scan speed	Auto (2 mm/sec)
Filter	Auto (12800 Hz)

Results:

Band Number	Expected Position of the Wavenumber [cm ⁻¹]	Measured Position of the Wavenumber [cm ⁻¹]	Difference [cm ⁻¹]	Acceptance criterion [± 0.5 cm ⁻¹]
1	2920.53	2920.66	0.130	Approved
2	2852.54	2852.20	0.340	Approved
3	1796.12	1796.37	0.250	Approved
4	1738.42	1738.51	0.090	Approved
5	1400.22	1400.07	0.150	Approved
6	965.51	965.198	0.312	Approved
7	871.40	871.667	0.267	Approved
8	727.79	727.996	0.206	Approved
9	711.77	711.604	0.166	Approved
10	698.21	698.105	0.105	Approved

Spectrum:

The expiration data is, as noted below, is 5 years from the date of validation.

Calibrated by: _____ Roberto Cruz

Date Certified: _____ August 17, 2023

Expiration Date: _____ August 17, 2028

Roberto
Cruz

Digitally signed by Roberto Cruz
DN: cn=Roberto Cruz, o=Jasco,
ou=Service,
email=rcruz@jasco.com.br, c=US
Date: 2023.08.17 15:59:36 -03'00'