

## IR - Sadtler ATR of Basic Polymers Database

Product Code - 4485

Spectra - 503

### Description

This database contains 503 ATR-IR spectra of basic polymers, identified by their chemical name. The polymer samples were distributed by Scientific Polymer Products, Inc. This collection is recommended for polymer laboratories and testing laboratories to identify polymers by infrared spectroscopy.

### Additional Information Listed

Each compound in this database is identified by its polymer/chemical name and the method of analysis as well as the source of the spectrum, source of the sample, and appearance. The catalog number, lot number, CAS Registry Number, melting point, etc. is displayed when available.

### Technique

All spectra were measured on a BIO-RAD FTS-175C Fourier Transform infrared spectrometer equipped with KBr beam splitter and a peltier cooled DTGS detector. A Smiths Detection DuraSampIR™ Diamond ATR Accessory, an in-compartment diamond attenuated total reflectance accessory, was used to produce the ATR spectra. It is configured for single bounce optics through the diamond minimizing the effects of the diamond in the 2300 wavenumber region. It has KRS5 optics yielding a full spectral range of 4000-400 wavenumbers. The collected spectra were measured with a nominal spectral resolution of four wave numbers which corresponds to an optical retardation of 0.25 centimeters using a single-sided (asymmetrical) data collection of the interferogram.

This data is fully applicable to microscope FTIRs with ATR objectives as well as bench-top systems with ATR units. Samples were analyzed using the neat or film method and the solvent used in the film is methylene chloride. In some cases, the samples were ground to improve the display of the ATR spectrum.

The database was prepared by Forensic Spectral Research located in Bridgeton, New Jersey. This laboratory specializes in spectral band studies of forensic and pharmaceutical compounds as well as spectral data cross-referencing and verification, and IR vapor phase consulting.