



ASTM D-5576

Determination of Structural Features in Polyolefins and Polyolefin Copolymers by Infrared Spectrophometry

Structural features of Polyolefins and Polyolefin copolymers are of interest and can be determined by Fourier Transform Infrared Spectroscopy (FTIR). In particular, the types and the overall number of branches on the main carbon backbone can be investigated by FTIR. Certain IR absorption bands representing branching groups can be used for quantitative analysis for example methyl group in Polyethylene (1378 cm^{-1}), methyl group in ethylene-propylene copolymer (1380 cm^{-1}), a pendant methyl group (935 cm^{-1}), a terminal vinyl group (908 cm^{-1}), a trans vinylene group (965 cm^{-1}).

(D5576, D-5576, D 5576)

ASTM Standard D5576, 2007, "Determination of Structural Features in Polyolefins and Polyolefin Copolymers by Infrared Spectrophometry," ASTM International, West Conshohocken, PA, 2007, DOI: 10.1520/D5576-00, www.astm.org.

New Hampshire Materials Laboratory, Inc
www.nhml.com • info@nhml.com
Tel: 800-334-5432 or 603-692-4110 • Fax: 603-692-4008