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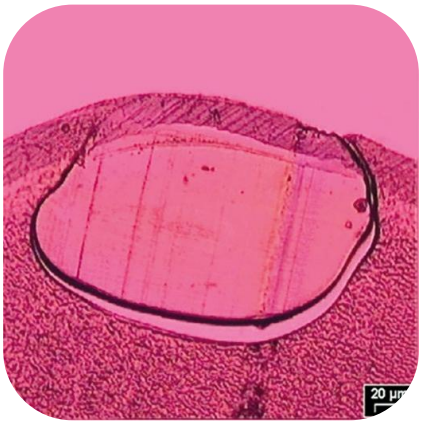
CAPABILITY



Failure and Contamination Analysis

EVALUATION OF POLYMERS, BLENDS, COMPOSITES, FILMS AND LAMINATES

KEY WORDS

FAILURE ANALYSIS,

ADVANCED CHARACTERIZATION,

POLYMER CONTAMINATION

DESCRIPTION

Many complex analytical techniques may be combined to asses the causes and prevention of failures and contamination of plastic products:

Optical microscopy with hot stage and automatic image analysis system (transmission, reflexion and polarized light modes)
Scanning electron microscopy with elemental microanalysis (SEM / EDX)
Transmission electron microscopy (TEM) including preparation of thin sections by cryo-ultramicrotomy
Infrared spectroscopy with Fourier transform (FTIR, micro-FTIR) and attenuated total reflectance (ATR)
Atomic force microscopy (AFM)
Differential scanning calorimetry (DSC)
Thermogravimetric analysis (TGA)
Gel permeation chromatography (GPC)

APPLICATIONS

Service failures
Polymer contamination
Material identification
Thermal degradation
Processing defects

CONTACT US

ott@plapiqui.edu.ar

Universidad Nacional del Sur