



Microstructural Analysis

OPTICAL MICROSCOPY OF MATERIALS

KEY WORDS

OPTICAL
MICROSCOPY,
MORPHOLOGY,
MICROSTRUCTURE

DESCRIPTION

A visual analysis of the polymer microstructure is performed using optical microscopy. This technique allows for the examination of surface morphology, phase distribution in blends or composite materials, the presence of defects such as pores or cracks, and the structure of fibers or films. It is a fundamental tool for failure analysis, quality control of dispersion processes, and the overall characterization of a material's structure at the micrometer scale.

AVAILABLE TECHNIQUES AND/OR EQUIPMENT

- Optical microscope

APPLICATIONS

- Failure analysis (fractography)
- Dispersion of fillers and pigments in polymers
- Morphology of polymer blends
- Characterization of composite materials
- Inspection of surfaces and coatings
- Cell structure analysis in foams

CONTACT US

labiq_fiqbog@unal.edu.co

[Universidad Nacional de
Colombia](http://www.unal.edu.co)