



# Plastic Film with Tailored Surface

**THERMOPLASTIC FILMS WITH TAILOR-MADE SURFACE BY A PROCESS WITHOUT ADHESIVES**

## KEY WORDS

SURFACE-ENGINEERED FILMS,

FUNCTIONAL THERMOPLASTIC FILMS,

ADHESIVE-FREE TECHNOLOGY

## DESCRIPTION

A simple and versatile process to modify thermoplastic film surfaces is developed. It allows to design special films by surface modification including nanoparticles without adhesives. This process was further proved at laboratory and pilot scale to include properties like: aromas and odors retention, moisture and microwave absorption, electrical conductivity, printability and paintability. Films with antimicrobial, antibacterial and antifungal was also developed.

Developed process is sustainable, low costs and adaptable to continuous industrial process. Obtained films have wide applications fields like flexible packaging, graphic and printings, electronic devices, etc.

## APPLICATIONS

- Functional surface films
- Antimicrobial packaging
- Aroma-retention films
- Moisture-absorbing films
- Microwave-active packaging
- Conductive plastic films
- Printable film surfaces
- Paintable plastic films
- Adhesive-free surface modification
- Flexible packaging solutions
- Electronic device films
- Sustainable film technologies
- Industrial-scale surface engineering

## CONTACT US

[ott@plapiqui.edu.ar](mailto:ott@plapiqui.edu.ar)

[Universidad Nacional del Sur](#)