



## Uradil® FP-9300

# EXCELLENT RUB RESISTANCE FOR LONG-LASTING FILM TRANSPARENCY

Alongside sustainability, packaging performance is always top of mind for brand owners. That's why we optimize our Uradil® FP-9300 coating to maintain excellent print fastness, without the need for undesirable substances in the formulation. This enables improved recyclability while still maintaining excellent visual properties for long-lasting film transparency.

### Good rub resistance meets improved recyclability

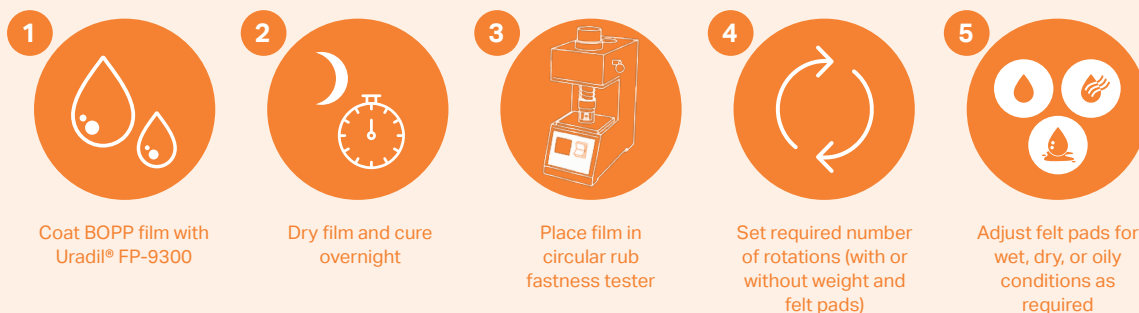
Flexible BOPP packaging can undergo rubbing at numerous stages of its production and use, which can lead to obscured print and undesirable products. A rub test is used to determine the reaction of the coated substrate to the application of heat and pressure. This verifies that the printed material on the BOPP flexible packaging does not smudge.

### Improved print fastness

A rub test determines the rub/abrasion resistance of inks on printed flexible BOPP packaging under dry, wet, or oily conditions. Wet rub resistance is especially important where printed and varnished surfaces may encounter water or condensed moisture (e.g., frozen and chilled foods).



## Covestro's step-by-step approach



These graphs show how the rub resistance of BOPP flexible plastic packaging is improved when coated with Uradil® FP-9300 in our labs. Uradil® FP-9300 offers the same rub resistance as PVdC, without the need for undesirable substances in the formulation.

Application properties		
Rub resistance		
	PVdC	Uradil® FP-9300 (formulated)
<b>Dry rub resistance</b>	0%	10%
x25 cycles		
x50 cycles	10%	10%
<b>Wet rub resistance</b>	0%	0%
x25 cycles		
x50 cycles	0%	50%

### Rub resistance test

#### 0% Damage:

Very good; no attack or deterioration observed

#### 100% Damage:

Very bad; layer of varnish entirely or practically entirely dissolved

Tests executed with STM 462 circular rub fastness tester from Satra.

For more information about the formulation used, please contact us via [solutions.covestro.com](https://solutions.covestro.com)

### About Uradil® FP-9300

The new Uradil® FP-9300 is a water-based coating that improves the mechanical recyclability of flexible BOPP packaging films. It offers the same heat sealability, alcohol resistance, and aesthetic properties as PVdC-coated packaging. Unlike PVdC-coated packaging, however, when processed in mechanical recycling streams, it produces a high-quality, transparent recycle.

Uradil® FP-9300 is an alternative to chlorine-based coatings, enhancing the recyclability of BOPP flexible plastic packaging. Coating packaging in Uradil® FP-9300 reduces the risk of potentially degrading the quality of BOPP recycle or damaging recycling equipment through the production of hydrochloric acid.

Choosing Uradil® FP-9300 instead of PVdC is a step on the way toward building a circular economy for flexible BOPP packaging.

[Click here](#) to learn more about the rub resistance properties of Uradil® FP-9300.

### TERMS AND CONDITIONS

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<sup>1</sup>Please see the "Guidance on Use of Covestro Products in a Medical Application" document. Edition: July 2021