

GENERAL NOTICE
Technical Sheet

SUBJECT

Behaviour of nitrocellulose inks for heliogravure printing on PETG labels or sleeves in PET bottle recycling.

IMPACT SUMMARY TABLE

Recycling stage	Impact	Description	Consequences
Pre-washing (optional)	∅	If the ink comes off its base, dispersal in washing water	
Sorting of bottles	⌚	<i>Bottle with metallic pigment ink: study in progress</i>	
	∅	Ink with mineral or organic pigment: no impact on sorting	
Grinding	∅		
Washing	∅	If the ink comes off its base, dispersal in washing water	
Flake floating and separation	∅	Ink remaining on a base with density >1 remains in the HDPE stream	
Flake sorting (optional)	∅	One coloured fleck in the light stream => up to 100 flecks rejected	<ul style="list-style-type: none"> Higher losses ➤ Increase in waste to be processed
Granulation (optional) and Recycling	∅	<u>Coloured stream</u> : the colouring resulting from inks remaining on the base has no impact on the colouring of the recycled material.	<ul style="list-style-type: none"> Directed towards coloured applications
	⚠	<u>Light stream</u> : the colouring resulting from inks remaining on the base alters the colour of the final material (depending on depth of colour and on surface area).	

⚠ Caution ∅ No impact ⌚ Under examination ➤ **Environmental consequences**

GENERAL OPINION

In the current state of equipment and techniques used and available in Europe, the nitrocellulose inks currently used on labels and sleeves made from PETG with density > 1:

- do not disrupt the recycling of dark PET bottles,
- are likely to disrupt the recycling of light PET bottles.

Out of precaution, COTREP recommends, for the printing of PETG labels or sleeves for the light PET stream, using ink that can be eliminated by washing operations.