COmité Technique de Recyclage des Emballages Plastiques

GENERAL NOTICE
Technical Sheet

SUBJECT

Behaviour of a PVC label or sleeve in recycling PET bottles.

IMPACT SUMMARY TABLE

Recycling stage	Impact	Description	Consequences
Pre-washing (optional)	Ø		
Sorting of bottles	⚠	1 PET bottle with PVC sleeve or label detected, ⇨ up to 3 bottles with no PVC label ejected	• Higher losses ➢ **Increase in waste to be processed**
Grinding	Ø		
Washing	Ø		
Flake floating and separation	⚠	PVC flake (undetected label) cannot be separated from PET flake from flotation (density of both materials >1)	• PET stream polluted
Flake sorting (optional)	⚠	1 PVC flake detected ⇨ up to 100 flakes ejected	• Higher losses ➢ **Increase in waste to be processed**
Granulation (optional)	⚠	At PET conversion temperature, PVC is destroyed to form a coal-like residue ⇨ Extruder filters are blocked and/or granules have quality flaws.	• Higher losses ➢ **Increase in waste to be processed**
Recycling	⚠	At PET conversion temperature, PVC is destroyed to form a coal-like residue ⇨ - Filters blocked - Fibre application channel blocked - Visual flaws - Holes, etc.	• Process heavily disrupted - more machine stoppages - higher losses • Quality flaws ➢ **Increase in waste to be processed**

⚠ Caution Ø No impact ⌛ Under examination ➢ **Environmental consequences**

GENERAL OPINION

In the current state of equipment and techniques used and available in Europe, PVC labels or sleeves heavily disrupt PET recycling.

COTREP recommends against using PVC labels or sleeves on PET bottles.

This does not concern tamper-proof sleeves, which are removed when used by consumers.