Cotrep
Comité Technique pour le Recyclage des Emballages Plastiques

HDPE/PP STREAM

Labels and sleeves

General Notice

Behaviour of PS labels or sleeves during the recycling of HDPE and PP bottles

1/ Summary table of impacts on regeneration

Recycling stage	Impact	Description	Consequences
Sorting on bottles (optional)	Ø	1 PET bottle with PVC label or sleeve detected → up to 3 bottles without PVC label ejected	An increase in losses ➔ **an increase in waste to be processed**
Crushing	Ø	-	-
Flotation	⚠	Depending on their density, PS flakes are directed into the PE+PP stream (d<1) or into post-sorted waste (d >1)	PE+PP stream pollution An increase in losses ➔ **an increase in waste to be processed**
Washing	Ø	-	-
Granulation Recycling	⚠	Given their similar conversion temperatures, PS, PP and HDPE will be shaped in the same way	PS is incompatible with the HDPE/PP blend It has a tendency to agglomerate and impair the final properties of the material (creation of areas of weakness, incipient breaks)

⚠ Caution Ø No impact ➔ **Environmental consequences**

2/ COTREP's conclusion

With the techniques and equipment currently available and in use in Europe, a PS sleeve can disrupt the recycling of the HDPE + PP stream. If its density is below 1 it will not be separated and will be present in the final material. Its incompatibility with HDPE/PP will impair the properties of the final material.

COTREP recommends substitution of PS with a different, more compatible plastic where possible, or use of PS with a density above 1.

NB: *In the case of an integral sleeve or label, the behaviour of the packaging may vary, particularly during the sorting stages. For further information please consult General Notice No. 12.*