

HDPE CLEANING BOTTLES

COLLECTION



Cleaning and personal care products are mostly packaged in HDPE containers.

COLLECTION SCHEMES

Deposit

Comingled

Kerbside

HDPE household waste is very often collected together with other types of plastic packaging & packaging materials (e.g. metals).

SORTING CENTRE

Collected material is transported to a sorting centre where HDPE is sorted out and baled in preparation for recycling.

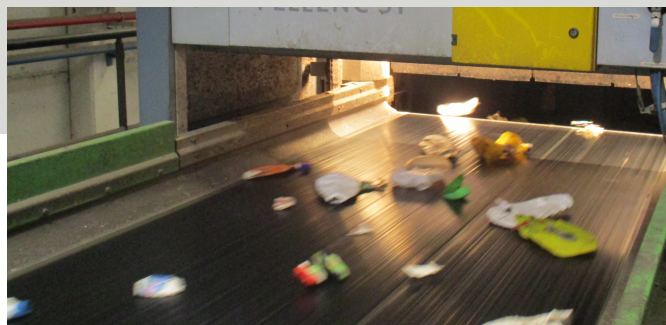
HDPE CLEANING BOTTLES

SORTING

2

SORTING CENTRE

Sorting centres sort plastic fractions according to given specifications, using Near-Infra-Red (NIR) technology. Different polymer types and materials, including contaminants (e.g. metals) are sorted out and HDPE is baled in preparation for transportation.



At a recycling plant, incoming bales undergo quality checks before they are fed to a recycling line.



DESIGN FOR RECYCLING

Black packaging cannot be detected by the NIR technology.

HDPE CLEANING BOTTLES

GRINDING & WASHING

3

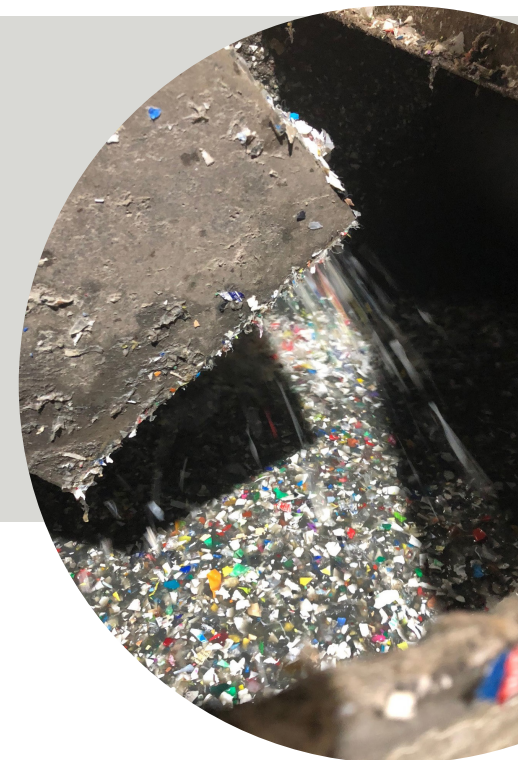


GRINDING

Prior to grinding, recyclers can further sort out materials by colour or sort out the rest of impurities. HDPE material is then ground into flakes.

WASHING & FLOTATION

After grinding the flakes are washed. During this process remaining impurities ($>1\text{g/cm}^3$) and plastic types, other than PE and PP, are removed via density separation techniques.



DRYING

Washed flakes are then dried.

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EXTRUSION & END PRODUCTS

4

DID YOU KNOW?

For some applications, washed and dried flakes can directly be used without undergoing the extrusion process.

EXTRUSION

During extrusion flakes are melted, compounded and filtered, forming pellets. Filtration removes any remaining contaminants.

rHDPE can be used in the production of new containers, as well as for products with a long lifespan such as pipes or dimpled sheets.

