



LDPE FILM COLLECTION

COLLECTION

Post consumer packaging film waste is collected from households together with other materials. It is then transported to a sorting centre, where different material streams are separated. Sorted flexible films (e.g. foils, bags, wrappers, etc.) are pressed into bales.

SORTING

At the recycling plant film is further sorted, separating out LDPE films from other flexibles such as multilayers, black film, metallised plastics and paper labels.

DESIGN FOR RECYCLING

Multilayers composed of non-compatible materials are not recyclable and are discarded into waste streams.





GRINDING

Film is cut into flakes, in preparation for washing.

LDPE FILM WASHING & GRINDING

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WASHING

To remove contamination, flakes are washed using a friction washer. Separation step is built-in within the washing process. In a floatation tank films float while heavier materials sink.



DESIGN FOR RECYCLING

Films containing additives like chalk, talk powder or marble, which change the density of the polymer end up in the waste stream.

LDPE FILM EXTRUSION

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FILTRATION

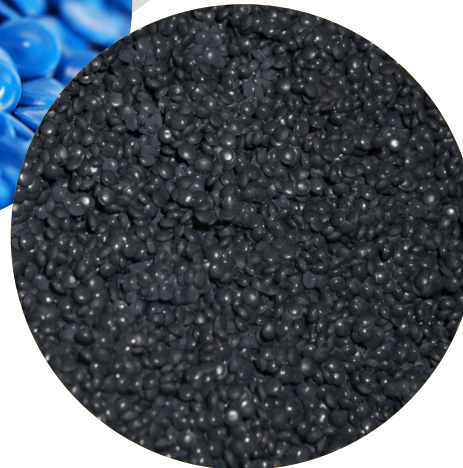
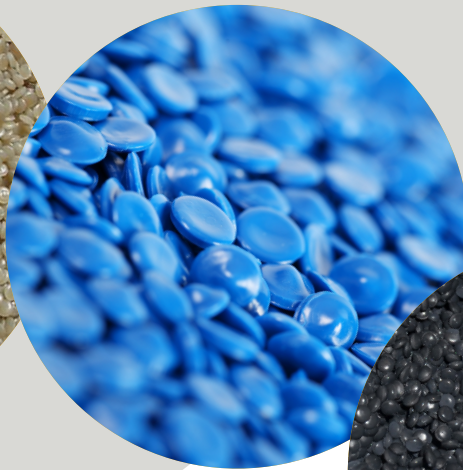
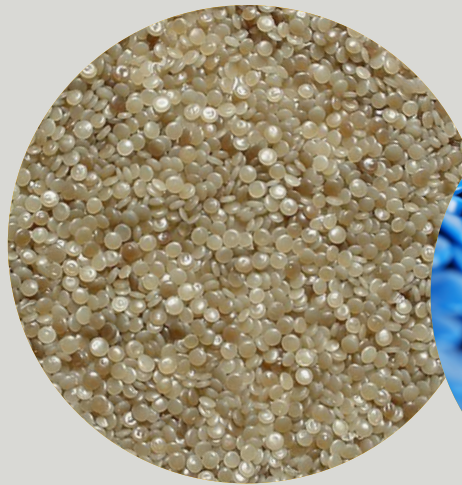
LDPE flakes are melted and extruded into pellets. They pass through 90 µm screens, to filter out impurities of non-melted particles such as PET, PA and PP.

DESIGN FOR RECYCLING

Metallised films disrupt the recycling process, as they can create holes in films during blown film extrusion. In addition, coatings, inks and pigments cannot be removed during the recycling process and therefore remain within the recyclates.

LDPE FILM FINAL PRODUCT

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CONVERSION

LDPE pellets are transformed into a final product (e.g. via the process of blown film extrusion).

LDPE pellets can be converted back into films, like collection and refuse bags, containing up to 100% recyclates.

