



*fresh thinking!*

# How is Plastic Recycled?



There are two types of plastics used in recycling - post consumer and post industrial rigid plastics, which are mainly polypropylene, polystyrene and polyethylene. This is normally purchased from manufacturers or Local Authority collection schemes and brought to a recycling plant.

On arrival at the recycling plant the materials are then sorted to type and colour and depending upon the condition of the material it is then either dry granulated, or washed and granulated to remove any labelling or residue product. This decontamination process ensures the production of high quality flake or granules. Laboratory tests are also carried out at this stage to assess the exact properties of the plastic, this is important for the next stage of the process.

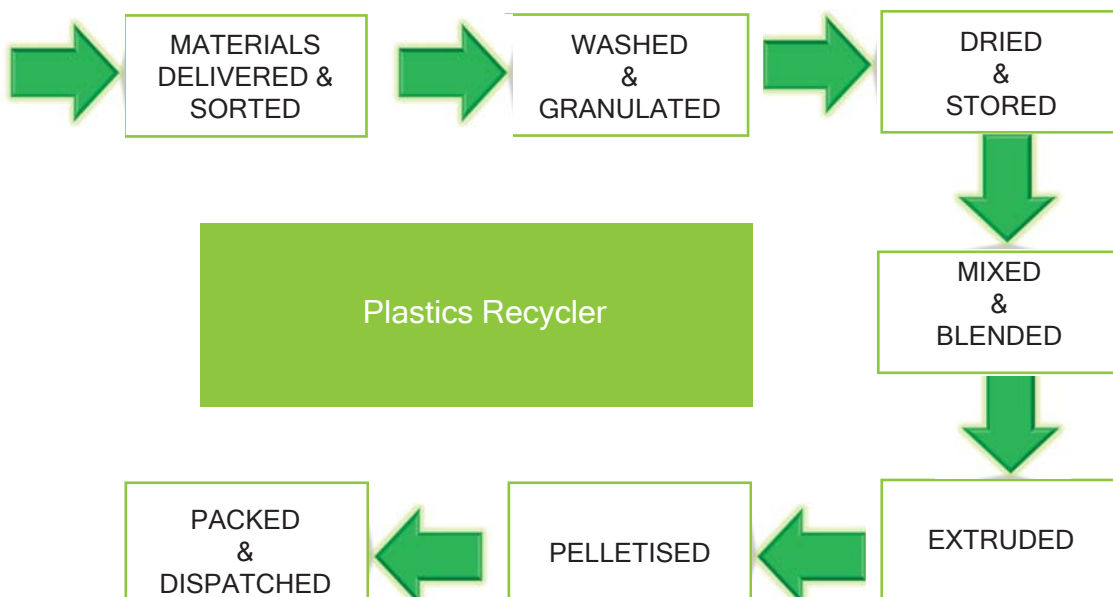
The cleaned and graded granules or flakes are then stored until they are ordered by a plastics processor. Once an order has been received from a customer, material is chosen for the stock of flakes and regrind and then blended together to give the exact specification of that required by the plastics processor.

The blend is then fed through an extruder. At this stage the colour is added in the form of masterbatch. The blend of plastic chips and colouring agent are fused together by heat and pressure in the extruder and the resulting molten plastic is then forced out through a multi-holed die. As the material merges from the die, it is chopped into small pellets by revolving blades and cooled in a water stream.

During the extrusion of any blend, samples are normally taken at regular intervals and are subjected to various QC checks to ensure the customer's requirement are met. The tests include:-

- M.F.I. tests
- Izod tests
- Colour matching
- Ash tests
- Density checks
- Moisture content checks
- Pellet geometry checks.

The finished product is then despatched to the plastics processor for further processing into new items.





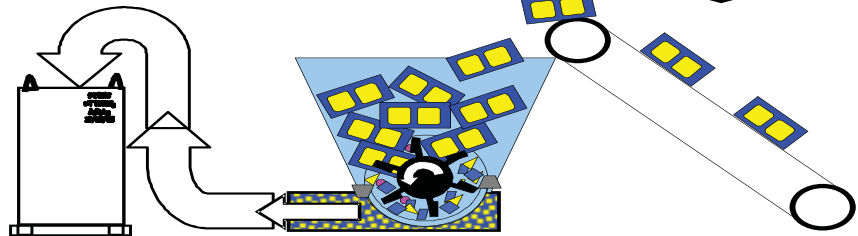
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# The Recycling Process

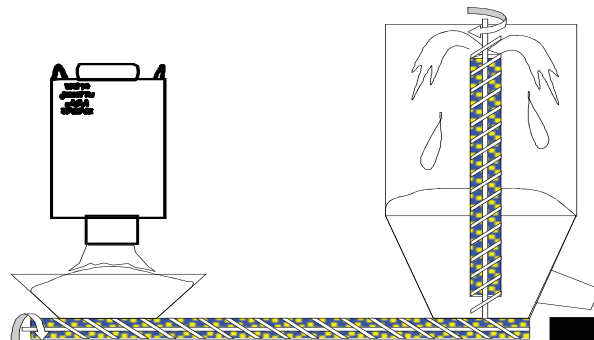


Scrap plastic materials are brought into the factory by road transport and stored until ready to use.

The scrap plastic is then chopped into small pieces of about one centimetre in size and stored in large bags. We then call this material flake or regrind depending on how thick the material is.



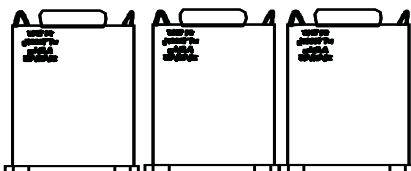
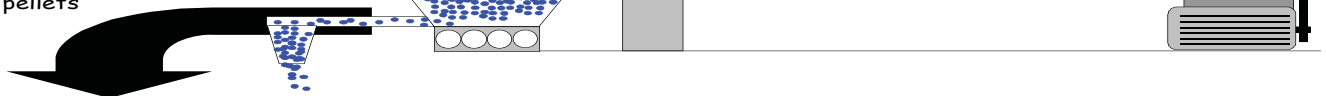
call a fountain blender. We do from the plastic that will meet our customers requirements.



The material from the fountain blender is then run through an extruder.

A colouring agent called masterbatch is also added at this stage.

The material is then heated up until it is molten and then forced through a die and chopped into small pellets



The pellets are then packaged and sent to our customers.

