

# The true cost of waste

an online tool to help reduce waste from the construction sector



## Plastics (Inc PVC, Polyurethane, Glass Reinforced Plastic etc)

Plastic is considered a Non-hazardous Waste. Statistics according to WRAP state:

- Over 5 million tonnes of plastic is used in the UK every year
- Only 19 per cent of the plastic used is recovered or recycled
- Building and construction sector accounts for 23% of the plastics market, second only to packaging
- Use of plastics in the construction industry is growing annually. It is used as plastic pipe work, insulation, window frames and flooring.
- 25 per cent of construction packaging waste by weight is plastic.

The [European Plastics Converters \(EuPC\)](#) trade association report '[The European Market for Plastic Building Products \(2007\)](#)' found, with the exception of insulation and board applications, PVC is the most-used plastic in all application areas in building and construction.

### Minimise:

The best way to minimise the amount of plastic product entering the waste stream is through careful product specification and use. Order products to size and in a quantity that matches the requirements of the project. Design specification of the structure should take into consideration the product sizes available to reduce the amount of off-cuts produced.

Choose products with minimal packaging or reusable packaging.

### Reuse:

It may be possible to specify reusable plastic packaging for the products delivered to site. The procurement team should contact the manufacturer / supplier to arrange this and negotiate the return of the packaging materials delivered to site.

If larger quantities of plastic products were delivered to site than needed, the procurement teams should contact the manufacturer / supplier and negotiate the return of the extra materials delivered to site. If there is another site that could use and requires the same plastic products, surplus materials should be transported there. If the construction company cannot use the plastic materials on another project or send them back to their supplier, the materials should be taken to a material reuse centre and reclamation yard for reuse by other companies or the general public if possible.

## Recycle

Plastic recycling is in its early stages but growing rapidly as technology and markets develop. Specialised pre-processing requirements exist and although there is a limited collection infrastructure, it is growing. Most plastic recycling companies require clean materials; however, there are a number of companies within the UK which can accept and collect most grades of plastics including mixed and contaminated materials. Uncontaminated plastics can be readily recycled and contaminated plastics can be suitable for recycling after additional processing. A range of plastics are recycled including:

- Polyethylene Terephthalate (PET);
- High Density Polyethylene (HDPE);
- Low Density Polyethylene (LDPE);
- Polypropylene (PP);
- Polyvinyl chloride (PVC);
- Polystyrene; and
- ABS (a copolymer of Acrylonitrile, Butadiene and Styrene) polymers.

The European PVC sector has set up [Recovinyl](#), an initiative that helps identify suitable recovery and recycling facilities for PVC waste and local authorities to facilitate the collection. Guidelines have been developed to help personnel identify and sort PVC waste. Further information on plastic recycling is available on the [British Plastics Federation website](#).

Further information is available from the '[The European Market for Plastic Building Products \(2007\)](#)' report.

Useful figures	
Wastage rate*	3.3% by weight (PVC) 3.8% by weight (Glass reinforced plastic) 4.4% by weight (HDPE and LDPE)
SMARTWaste benchmark**	0.185 tonnes/100m <sup>2</sup> (Non-residential projects) 0.294 tonnes/100m <sup>2</sup> (Residential projects)

### Notes

\* Taken from BRE's Green Guide to Specification

\*\* Based on completed projects on SMARTWaste database – plastics category (28<sup>th</sup> February 2010)

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