Bricks

Bricks are classed as Inert Waste and can be sent to landfill, subject to a Landfill Tax rate of £2.50 per tonne. However, many types of brick can be recycled as fill material, aggregate or re-used if the mortar can be removed cleanly. Reclaimed bricks may have a re-sale value as well as saving money on skip hire, transport and landfill disposal costs.

The energy needed to make one brick is enough to brew 2 pints of beer. We throw away 2 million bricks each year.

Minimise:
The best way to minimise brick materials entering the waste stream is not to produce it in the first place. Waste minimisation activities start from this notion. Just-in-time delivery of materials to site should be set up in order to prevent damage occurring as a result of inadequate storage and weather conditions. If the space on site allows it, covered storage areas, located away from the main traffic flow on site, should be set up to adequately store the materials arriving to site.

Reuse:
The reuse of bricks will depend on how the bricks were bound together to form a structure. If the bricks were bound together using mortar it is possible to remove the bricks down one by one. However if the bricks were bound together using cement it is difficult to clean the bricks of the cement binders and as a result recycling would be more suitable. Bricks in good condition can be reused on site for construction where they meet the required dimensional standards of BS 3921: Specification for Clay Bricks. If the site ordered more bricks than were needed for the construction, the procurement team of the project should investigate if other ongoing projects being undertaken by the company could reuse the surplus bricks and/or should set up take-back schemes with the brick manufacturer / supplier. If these are not possible then effort should be made to find a material reclamation yard or reuse centre located near to the project where the unused bricks could be sent. To reclaim bricks, ensure staff are trained in the various recovery techniques needed e.g. removing mortar from bricks.

Recycle:
If the site cannot accommodate the reuse of bricks on the project, the bricks should be stored along with off-cut brick materials in an inert skip and arrangements made with the waste management contractor to remove the inert materials and process this into Recycled Aggregate (RA). On construction sites it is common practice to segregate bricks and store these in a separate skip with
other inert materials. Segregating bricks from the general waste stream means that the site would pay less for skips containing inert materials.

**General advice:**
- Re-use your materials where practicable - don’t throw away cut bricks
- In cavity wall work, use blocks with a high percentage of recycled aggregate, e.g. Thermalite.
- Send back brick pallets - don’t waste space in a skip.
- Pack skips well - a skip is up to 40% air.
- Unless they are allowing water egress, fill the perps to make walls more thermally efficient.

**Special problems for bricklayers’ waste:**
- Water that comes into contact with cement powder or workable concrete can be highly alkaline and therefore is defined as hazardous waste.
- Concrete contains chromium, which is polluting to watercourses and groundwater.
- Washout water from trucks and mixers must never enter stormwater drains.
- Where possible, store and re-use washout water, allowing the silt to settle.

**Brick related waste categories**

**Inert waste** - includes set concrete, bricks, tiles, slate, sand, gravel, clay pipes.

**Non-hazardous waste** - includes timber, packaging, insulation, plastic, wet cement, PVA, DPC, empty tins and tubes, metal.

**Hazardous waste materials** - includes cement washings, coaltar products, two-part resins, brick cleaner, solvent (white spirit) based products (including some micro-porous seals and many paints and waterproofing materials).

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### Useful figures

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<table>
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<tbody>
<tr>
<td><strong>Wastage rate</strong></td>
<td>5% by weight</td>
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<tr>
<td><strong>Waste arisings</strong></td>
<td>1,889 tonnes/100m² (Non-residential projects)</td>
</tr>
<tr>
<td></td>
<td>2,924 tonnes/100m² (Residential projects)</td>
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**Notes.**
* Taken from BRE’s Green Guide to Specification
** Based on completed projects on SMARTWaste database (28th February 2010)

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