MATERIAL DATA SHEET: METALS



Typical items we accept:

- Lead roofing
 - Copper pipework and cabling
- Radiators
- Aluminium castings
- Stainless steel
- Metal food and drink cans
- Aerosols

Every tonne of steel generated from recycled material saves 1.5 tonnes of iron ore and 0.5 tonnes of coal, as well as 40% of the water and 75% of the energy needed to make steel from virgin material. Solid waste is also reduced by 1.28 tonnes and air emissions by 86%.

Metals come in two forms; ferrous (steel and iron) which includes steel packaging such as food cans and non-ferrous (copper, brass, aluminium and zinc) which includes over 75% of drink cans. The most commonly used non-ferrous metals in the construction industry are aluminium, copper, lead and zinc. Recycled non-ferrous materials are essential to the survival of the metallurgy industry as even new metals often require the combined use of recycled materials. Iron, steel and aluminium are the world's most recycled materials and among the easiest to re-process as they can be separated magnetically from mixed waste streams. According to the British Metal Association (BRMA) some 2 billion aluminium and steel cans are recycled in the UK every year.

OUR METALS RECYCLING SOLUTION

We provide a range of containers to collect non-ferrous metal waste from 7-yard skips to 40-yard rolon-off containers. These can be collected by our logistics team and transported to our Materials Recycling Facilities (MRFs). We also accept delivery of metal waste that is transported to our MRFs. At our MRFs we separate metals into a series of discrete streams: Aluminium, Copper, Lead, Steel and Zinc which are baled and bulked for transport to specialist recycling facilities. The re-processing techniques vary but generally involve re-melting the materials in a furnace and recasting.

Any grade of steel can be recycled to top quality new metal with no 'downgrading' from prime to lower quality materials i.e. 42% of crude steel produced is recycled material. Recycling aluminium only results in approximately 5% of the CO2 that would be released during the production of raw aluminium. Virtually all metals follow a closed loop recycling process and are recycled into a high quality manufacturing resource.

Ferrous metal waste is re-melted or used as part of the charge in a Basic Oxygen Furnace. Some ferrous metals recovered during demolition can be re-used on-site in the build phase for structural applications such as beams, columns and lintels.

Non-Ferrous metals such as Copper scrap are cleaned and melted down. Impurities are then extracted and the residue is recast into a variety of end-uses including electrical applications, piping, roofing, insulation and household items.

Aluminium is shredded and ground into small pieces or crushed into bales then melted in a smelter to produce molten aluminium. By this stage the recycled material is indistinguishable from virgin aluminium and further processing is identical for both.

Lead waste is melted down in a furnace, poured into casters, shaped into ingots and used, mostly in batteries. Tin is used to plate cans and in the automotive industry, zinc is commonly used as an anti-corrosive.

Our digital data capture systems enable us to provide complete chain-of-custody reporting from collection to final destination. Electronic waste transfer notes are issued for all materials we manage in compliance with your Duty of Care obligations.

The McGrath Group is accredited to various trade bodies and accreditations including PAS 402:2013. We also operate an integrated management system which is certified against international standards OHSAS 18001 (Health & Safety), ISO 9001 (Quality) and ISO 14001 (Environmental) this ensures our products and services are supplied safely, consistently and sustainably.



KEY FACTS

EWC Code:

17 04 01

17 04 02

17 04 03

17 04 04

15 01 04

Percentage we recycle: 100%

Relevant regulation:
Confederation of British Metal forming

Average CO2e saving per tonne recycled: -0.2 tonnes (Defra)



