



Hall & Pickles a division of Hall & Pickles 1812 Limited Sustainability of Steel Statement

HALL & PICKLES 1812 Ltd is one of the largest independent steel stockholders in the United Kingdom. We operate an Assured Supplier and Approved Supplier list across our business ensuring we purchase our steel from Quality assured steel mills and suppliers. The majority of products we purchase to sell are supplied by well-established UK or Western European suppliers in the steel industry. These steel mills and suppliers are committed to playing a responsible role in the shaping of a sustainable future for generations to come.

Steel is also the ultimate sustainable material that can be recycled infinitely without losing its properties or performance, and also provides high economic value at all stages of its life cycle.

Key factors for steel mills to fulfil this commitment include:

- To be a responsible steel supplier and manufacturer to ensure raw materials are sourced from responsible supply chains and in line with sustainable business practices.
- To manufacture steel using carbon neutral steelmaking steel mills will focus on becoming innovators in carbon neutral steelmaking, committing resource to transforming the way sustainable steel is produced whilst ensuring a safe working environment and protecting the local and global environment.
- To enable their customers (Hall & Pickles 1812 Ltd) to become more sustainable in the future – We (Hall & Pickles) need to rely on the steel mills sustainable solutions and expertise to provide ongoing improvement in the sustainability of steel so that we can improve the sustainability of the products and services we offer to our customers (supply chain) and in turn create the sustainable products the current and future generations require.

Steel mills across the UK and Western Europe are already undertaking a program of improvements and are implementing future plans for continual improvement of steel making with many setting targets to reduce carbon foot prints / emissions in coming years with the end target to become carbon neutral with several mills aiming to achieve this goal within the next 35 years.

As a stockholder we will look to commit to purchase steel from steel mills that demonstrate these levels of commitment to producing and developing steel products that are in line with their sustainability target or program.





Why is Steel a sustainable product?

Steel is truly a sustainable material and is produced in various forms and grades all of which are all sustainable. However, in order for steel to fulfil its sustainability potential it will rely not only on the steel mills producing sustainable products and stockholders purchasing steel from these outlets, it will also rely on the fabricator playing its part, for example recycling scrap and ensuring it enters back into the cycle of steel production.

Information with regard to recycled steel used in the production of steel.

Steel is the most recycled material in the world with an estimated 459 million tonnes being recycled in 2017—about 37% of the crude steel produced that year. This is equivalent to 180 Eiffel Towers every day.

In theory, all new steel could be made from recycled steel (scrap). However, two factors prevent this. The first is the increasing demand for steel, which is 50% greater today than it was 10 years ago. The second is the long life of products made from steel, which—although environmentally positive—delays its availability as scrap. Together, they prevent the total demand for new steel from being met by scrap. Therefore, current steel production still requires iron ore.

There are two main production processes to manufacture steel –

Firstly -The integrated steel route based on **BLAST FURNACE (BF)** and **BASIC OXYGEN FURNACE (BOF)**

Secondly - The Electric Arc Furnace (EAF)

Both processes are commonly used in the UK and Europe in the manufacture of steel.

Key raw materials needed in steelmaking include iron ore, coal, limestone and recycled steel. The two main steel production routes and their related inputs are:

Route 1: The integrated steelmaking route, based on the blast furnace (BF) and basic oxygen furnace (BOF), which uses raw materials including iron ore, coal, limestone and recycled





steel. On average, this route uses 1,370kg of iron ore, 780kg of metallurgical coal and 270kg of limestone and 125kg of recycled steel to produce 1000kg of crude steel.

Route 2: The electric arc furnace (EAF) route uses primarily recycled steels and direct reduced iron (DRI) or hot metal, and electricity. On average, the recycled steel EAF route uses 710kg of recycled steel, 586kg of coal and 88kg of limestone and 2.3GJ of electricity to produce 1000kg of crude steel.

Around 70% of total global steel production relies directly on inputs of coal via the BF/BOF route. In 2017 about 1.2 Gt of crude steel were produced in BOFs, which required the output of about 1.1 Gt of BF (hot metal/pig iron) and about 200Mt of scrap.

In 2017, global EAF output accounted for about 30% of global steel production (around 480Mt), which required the output of about 60 Mt BF, 90 Mt of direct reduced iron (DRI) and 380 Mt of scrap.

Source: World Steel Association Fact Sheet – steel and Raw Materials

Steel mills that use the EAF process advise that there is between 80% to 98% of recycled steel / scrap used to manufacture steel products. Steel mills that use the BOF process they have advised that there is between 20% to 25% of recycled steel / scrap used in the manufacturing of there steel products.

Various European steel mills have advised the following information – they indicate that in the European steel industry as a whole recycled scrap steel accounts for 56% of total steel making, being made up of 32% pre-consumer and 24% post- consumer scrap. For purchases of European steel they recommend using a recycled content figure of 56% which reflects the total industry position.

Two factors limit the opportunity to increase the recycled content of steel. The first is the increasing demand for steel and the second is the long life of the products made from steel. At this moment in time the total demand for steel could not be met solely by recycled scrap. Much more steel is wanted than could be made with scrap alone and not enough scrap arises from end of life products. There the majority of new steel has to be made by the BF and BOF route. Therefore there is an argument that it is better to concentrate on improving recycling rates rather than to specify higher recycling content in steel.

The proportion of end of life products that are recycled – over 80% in the case of steel – is the important factor rather than the recycled content of steel.

Materials that are 100% recyclable again and again such as steel already possess an important characteristic of sustainability helping provide the needs of today's world and at the same time retaining materials for the use of future generations.





End of life recyclability focuses on the design and management of products and on their disposal and recycling at the end of their useful life, which supports sustainability.

100% recyclable steel, with a recycled content that re-uses most of the scrap arising worldwide from end of life products, does this – supporting sustainability.

Signed:

Quality Assurance Group Manager:

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Approved by:

Signed:

Group M.D. / CEO

Date: June 2024