EUROFER
The European Steel Association

Fact Sheet

Environment

LEED Recycling data on European Steel Production

Application of the LEED Recycled Content Criteria for the European Regional Market

Steel: the most recycled material

Steel is the most recycled material in the world and recycled steel is used in the manufacture of all new steel. So it is natural to ask the question "What is the recycled content of my steel?" on the assumption that steel with a higher proportion of recycled content might be more 'sustainable'. But for steel this will not be true.

The concept of the recycling and its appropriate measure

The concept of recycled content is a useful metric to recycling of materials which may otherwise be incinerated or land-filled. But this is not the case for steel. Steel has been recycled for over 150 years and the recycling process and infrastructure is efficient and economical without any added stimulus. Scrap steel is valuable, so wherever it can be recovered, it is, and very little steel ever goes to waste. So, buying steel on the basis of high recycled content does not stimulate further recycling, but may actually stimulate the market to redirect feedstock away from products or markets where recycling is most economical – potentially reducing efficiencies and increasing costs and international transport of steel.

This view is shared across the metals industry and also by institutions (Carbon Trust , UK Waste Recycling Action Programme). Rather than attempting to increase the recycled content of steel, the way to make steel-based products more sustainable is to ensure that, at the end of their useful lives, the steel can be easily recovered to ensure continued, economic recycling.

LEED certification and steel products

Despite recycled content being an inappropriate measure of the sustainability of steel, certain schemes which cover multi-materials (e.g. LEED certification of buildings) require information on this metric. In such cases, and to prevent inefficiencies, it is best to take a holistic view of recycled content. For the European steel industry as a whole, the required LEED data can be calculated using the following figures in 2010[1]:

- Total steel scrap used for steelmaking : 95.8 million tonnes (made up of approximately 54.2 million tonnes pre-consumer and 41.6 million tonnes post-consumer scrap)
- Total steel produced: 172.6 million tonnes

Further information on steel production and steel recycling can be obtained from the following sources:

- http://www.eurofer.be/eurofer/Publications/pdf/2013-SteelRecycling.pdf;
- http://www.worldsteel.org/publications/position-papers/lca.html;
- http://www.metalsforbuildings.eu/docs/MFBBrochureEN.pdf
- http://www.metalsforbuildings.eu/docs/20061130RecyclingPrinciples.pdf
- http://www.eurofer.eu/eurofer/Publications/pdf/2012-Eurometaux-EUROFERRecyclingRatesforMetals.pdf

1 source: Bureau of International Recycling Brussels, World Steel Recycling in Figures 2006 – 2010 Steel Scrap – a Raw Material for Steelmaking, 2010 figures)