STAINLESS STEEL SUSTAINABILITY EVALUATION

What is the manufacturing recycled content?	75%+ in Europe and the USA, 31% in China and 60% elsewhere More information
Is stainless steel 100% recyclable?	Yes, and it is infinitely recyclable too More information
Does stainless offer a long operational life?	Yes, at least 110 years with zero or minimal maintenance More information
Does stainless avoid sending waste to landfills?	Yes, because it is both reusable and recyclable at the end of operational life More information
Can stainless be salvaged and reused?	Yes, very easily and the global supply chain to do this is firmly in place More information
Does it have a low emissions profile when in use?	Yes, it needs no coatings = zero emissions More information

Does it help to improve indoor air quality?	Yes, no VOCs needed or emitted, does not support bacterial / virus growth More information
Does it avoid the use of toxic materials?	Yes, due to zero need for any protective / antibacterial coatings More information
Can using stainless save energy?	Yes, both production energy of co-materials and operational energy loss
Can stainless conserve water?	Yes, used as non-leaking seismic resistant water lines and tanks More information
Can stainless reflective panels add natural light?	Yes, which avoids a need for artificial lighting. Many surface finishes available
Can stainless extend the life of co-materials?	Yes, for most building materials and it reduces the overall quantity needed

Is the stainless scrap availability a limitation?	The availability of end-of-life stainless scrap is growing rapidly however it is still limited in some parts of the world
How is Chromium (Cr) supplied?	Cr is available within captured stainless scrap and as FeCr which is produced by smelting the mined Cr ore
How is Nickel (Ni) supplied?	Ni is available within captured stainless scrap and as primary Ni, FeNi and Ni Pig Iron. Several different production processes produce these types of Ni and efforts to reduce the GHG emissions of these processes are advanced.
How is Molybdenum (Mo) supplied?	Mo is available within both captured stainless scrap and as Mo oxide and FeMo. A few production processes produce these types of Mo and efforts to reduce the GHG emissions of these processes are in development.
Is there any risk of a future shortage of the key alloying elements?	No, the increase in stainless scrap availability and the availability ores will satisfy the increase in demand for stainless steels for more than 100 years
Do stainless steels in use emit less CO2 than other materials?	Yes, correctly specified stainless steels will emit zero emissions when in use. Other materials will require maintenance which then creates emission in use.
Can production emissions of CO_2 be decreased for stainless steels?	Yes, using scrap as a raw material reduces the production emissions and work is also running to reduce the emissions associated with ore extraction

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About worldstainless

worldstainless is a not-for-profit research and development association which was founded in 1996 as the International Stainless Steel Forum.

Its primary roles are to undertake stainless steel industry beneficial tasks that are better coordinated centrally in the fields of

- Promoting industry and material sustainability benefits
- Conserving resources and promoting the circular economy
- Providing economic and industry-leading statistics
- Support industry health & safety needs and developments
- Outlining market development and expansion opportunities
- Maintaining brand reputational positioning
- Materials education

Contact

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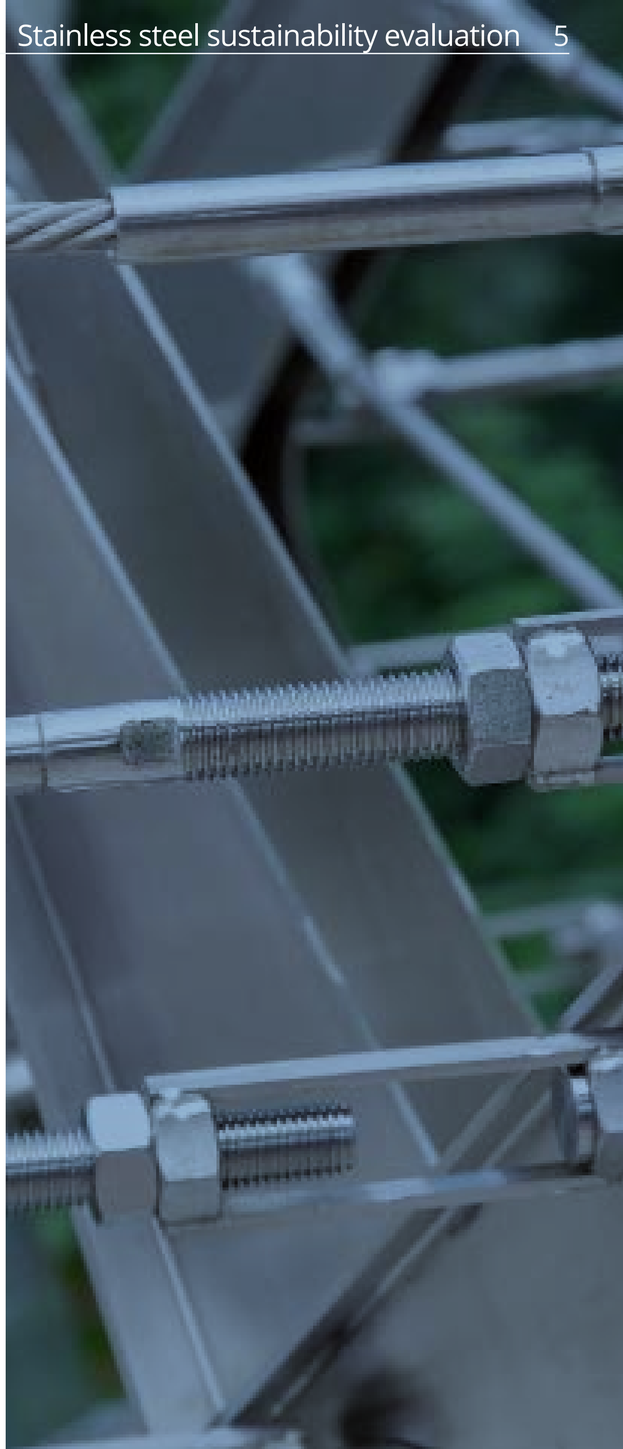

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