



THE GREEN ROOFING STORE

OUR ENDEAVOUR TO MAKE SUSTAINABLE HOMES FOR NEWZEALAND.



WE ARE DETERMINED TO MINIMIZE CARBON EMISSION FOR ALL OUR PRODUCTS.

1) The History of DK Steel Mill

The Roofing Store imports steel from a mill in the port of Seoul, South Korea, DK (Dongkuk) mill, which was founded in 1954 and supplies steel across the world for large household brands such as Samsung, Panasonic & Fisher and Paykel. Their finished products range from pre-painted roofing coils to structural galvanised steel. In 1974, they implemented a newly developed Eco Arch Furnace which enabled them to start contributing to the concept of sustainability by recycling steel whilst using 30% less energy in their manufacturing process.

2) Steel quality vs how steel is produced in NZ

1. With the use of the Eco Arch Furnace, DK mill uses iron ore which produces half the emissions compared to Iron sand commonly used in New Zealand. These emissions are formally known as CO, carbon monoxide, and CO₂, Carbon Dioxide which are incredibly dangerous and damaging to our world. Through the use of Iron ore in the Eco Arch Furnace, DK has a high scraping steel ratio which results in almost all of their scrap metals being recycled to produce more steel coil.

2. TRS is excited by these sustainable developments as they enable us to contribute to New Zealand's desire to achieve the net-zero target of 2050 set by the New Zealand Government and Climate Change Commission. We are also part of the NZ Green Building Council and Lifecycle Association of New Zealand.

2) Coating systems

1. We are the only distributor in NZ to offer a three-layer coating PVDF paint system. Simply, it is a three coat, three baked system. All our steel products have a 200g/ m² aluminium zinc coating with a 25-micron top layer primer, this is 50g m/2 more than any other distributor in New Zealand, which allows extra protection from corrosion and better whole-of-life performance in New Zealand's uniquely harsh weather conditions.

2. Our steel and paint have been tested for mechanical perforation, wind resistance, fire resistance, weather tightness and corrosion. These tests were performed in accordance with international standards such as Euro Code, American & Australian Code and mostly importantly with the New Zealand Building Code & Design Standards.

3. Along with our revolutionary steel & paint system, we are able to offer a 30-year perforation warranty, that's how confident we are when we say our product is the best on the market.



3) Sustainability efforts/carbon saving

1. With the use of the Eco Arch Furnace and iron ore DK mill produces 50% less carbon emissions compared to local steel production where Iron sand is used.

2. Through the use of Iron ore, DK mill has a high scraping steel ratio which results in almost all of the scrap metals being recycled to produce more coils.

3. Sustainability is at the core of The Roofing Stores vision, and we want to be recognised as the greenest & most sustainable roofing manufacturer in New Zealand. We believe that we are already leading in this space.

4. Locally, we have partnered with Sims Metals who recycle all our scrap metal to manufacture reinforcing bars.

5. We comply with international environmental laws and treaties to establish and implement the highest standards. We have managed to reduce carbon emissions by as much as 70% (without purchasing carbon credits). We also strive to set the standard for steel roofing and cladding production in NZ to achieve the greatest possible outcome for the environment and future generations proven by the fact that we are a member of the New Zealand Green Bu DK Mill CO₂ emissions equate to 1.3 tonnes per tonne of steel produced where the international benchmark states 2 tonnes of CO₂ per tonne of steel produced is acceptable. Local steel mills in NZ produce around 2.5 tonnes of CO₂ per tonne of steel produced, almost twice the amount of what DK produce. Hence, our manufacturing process saves 1,200kg of CO₂ being released into the atmosphere per tonne of steel produced, this is the equivalent of driving a car 5,000 km or driving from Auckland to Wellington return, four times!

6. Building Council and Life Cycle Association of New Zealand.

7. Day to day, our 12 nationwide branches make a conscious effort towards our green credentials, with little things such as using recyclable coffee cups, planting vegetable gardens and adding additional solar panels to our growing collection.

8. From 2020 to 2022 we sponsored a lecturer at the University of Auckland, who led the sustainability concept for TRS in collaboration with UOA. Furthermore, we are sponsoring a lecturer at the University of Waikato to support our ongoing campaign of sustainability.

5. Five reasons to use The Roofing Store steel cladding/framing

1. Our steel roofing and cladding products offer architects more design freedom in colour, texture and form. A combination of strength, durability, beauty, precision and malleability gives architects broader parameters to explore ideas and develop fresh innovative solutions.
2. Globally, steel is amongst the top recycled building material.
3. Our steel is non-combustible, it cannot burn because it contains no elements that can serve as fuel. It provides no means for a fire to start, and it does not contribute to fire growth or fire spread.
4. The Roofing Store steel-framed/cladded buildings tend to cost less to insure as compared to other building materials.
5. The Roofing Store steel cladded buildings are more sustainable when considering the 'whole life cycle' of the building.

TRS IN ASSOCIATION WITH AUCKLAND UNIVERSITY

The Roofing Store is sponsoring sustainability research at the University of Waikato to deliver more sustainable products to the NZ housing market. We are also sponsoring PhD students at the University of Auckland for roofing store product testing and sustainable product developments. We aim to be the most sustainable roofing business in New Zealand by 2025. Reducing the greenhouse gases from the manufacturing of cold-formed steel products alongside minimising the operational energy in buildings, we aim to contribute to the Net Zero Carbon goal of the NZ Government.



WE ARE CONCERNED ABOUT OUR FUTURE AND OUR ENVIRONMENT

We are trying to make a pre-emptive effort on global warming issues and have been reducing and complying with the government restrictions without purchasing additional carbon credits.

We recognize the environment as an important element that needs to be managed and considered at all stages of the production process. Through this approach, we can identify potential environmental emergencies and prepare organizational responses. In the future we will continue to efficiently recycle iron accumulated from decades of domestic and commercial waste through advanced technologies, reducing CO2 emission expected in 2030 by a further 37%. We not only comply with international environmental laws and treaties to establish and implement the highest standards, but we also strive to set the standard for steel roofing and cladding productions in the world to achieve the greatest possible outcome for the environment and future generation to come.