

# Technical Data Sheet 12

## Sustainable Manufacture

**In 1976 New Zealand Steel established its environmental laboratory to monitor and improve its environmental performance. In the early 1990's the company volunteered to lower its carbon emissions through the introduction of a Co-generation plant and was awarded a Ministry of Environment Award. In 2003 New Zealand Steel was awarded ISO14001, an internationally recognised environmental standard. New Zealand Steel is one of only a few New Zealand companies to achieve this.**

### Recycling

New Zealand Steel recycles 99% of its water. The remaining 1% is cleaned, tested and discharged. Water is discharged into mixing points in the Waiuku estuary which are continuously checked. Reports are submitted to regulatory bodies and New Zealand Steel consistently meets requirements set.

All rainwater which falls on the site is collected in large settling ponds. The water is then clean enough to either discharge into the Waiuku Estuary, or to be recycled back into the site water circuits.

An audit carried out on potable water usage in 2006 resulted in an annual reduction of approx 40% of potable water from 2006–2007. Further forecasted savings are anticipated.

New Zealand Steel recycles hot gases and steam in its Cogeneration plant to create up to 70% of its own electricity needs. It is one of the few steel manufacturers in the world to do this. The Hatch reports rates New Zealand Steel as best practice in energy efficiency.

### Waste Management

Up to 80% of waste from the steel making process is recycled back into the process or in to co-products. It is New Zealand Steel's goal to achieve Zero Waste.

In the last three years New Zealand Steel has reduced waste going into landfill by 65%.

On-site plastic recycling has resulted in 15 tonnes of plastic and 25 cubic meters of



*Mined sites are replanted.*

polystyrene being diverted from landfill in the last four months

### Transportation

New Zealand Steel uses electric powered conveyor belts and slurry pumps to transport sand eliminating the need for trucking. Whilst this was a more capital intensive transportation option the impact on the environment is marginal. Alternatively a truck would be required to travel every 3 minutes 24/7. The considerable negative environmental impact ruled this option out.

Coal is sourced close to the mill in the Waikato area and transported by purpose-built rail and is stockpiled close to the smelter area to further reduce transportation.

New Zealand Steel is an integrated site where raw steel and finished products, including painted products, are all made. This is unusual in the global steel industry but by its very nature eliminates extensive transportation between each steel making process.

### Land Restoration

25% of mined sand is extracted as Titanomagnetite (ironsand). The remainder is returned to the mined areas, which are then planted with marram grass and pine trees. Once restored there is little or no trace of mining.

### Air

The biggest percentage of the company's capital investment in environmental control is in the improvement of the quality of its emissions into the atmosphere. The scale of the air cleaning operation is enormous with more than 3 million cubic metres of waste gas being cleaned each hour. New Zealand Steel has an air monitoring programme in place to assess air quality. Reports are submitted to regulatory bodies and New Zealand Steel consistently meets requirements set.



Kiwi to the core

NEW ZEALAND STEEL  
100% RECYCLABLE

