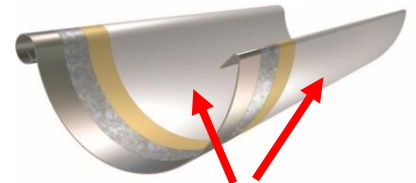


Lindab Sustainability Review:

This document summarises the key sustainability and environmental benefits, of the Lindab modular steel gutter, over New Zealand manufactured conventional guttering systems. Lindab is a Swedish company, that started in 1956 and it is now one of the world's leading gutter manufacturers. Lindab exports to over 30 countries and its products are renowned for their quality and innovation.

Sustainability, Maintenance & the Environment;

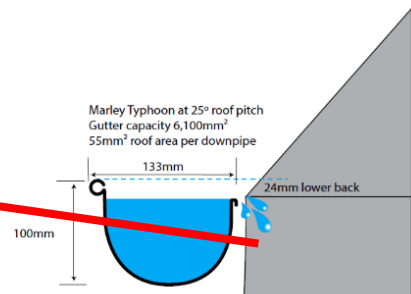
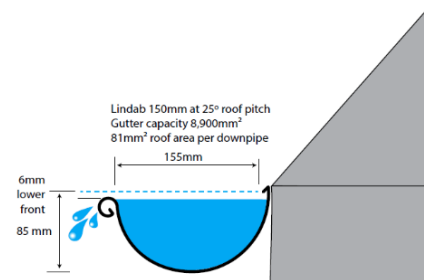
Product Feature	Lindab	NZ Steel Producers	NZ PVC Producers
Carbon emissions:	✓	?	✗
<ul style="list-style-type: none"> Lindab's gutter products are made from up to 30% recycled steel, their steel supplier (SSAB) has the lowest steel mill emissions in the world and their iron ore supplier (LKAB) has 14% lower emissions than the average mine. In addition, SSAB is now taking steps to create the world's first fossil free steel production. European Gutters pays an Environmental Fuel Fee on its Lindab Container imports. Steel has the lowest carbon footprint of any rainwater material. Vinyl Chloride Monomer's, used in the manufacture of PVC, is a known human carcinogen. 			
Product Longevity:	✓	✗	✗
<ul style="list-style-type: none"> Lindab's steel core is covered by a pre-painted high-build polyester coating on both the in and outside of the product, providing it with superior durability. In some locations the functional integrity of Lindab will last in excess of 60 years. NZ manufactured steel gutters are only primer coated on the water side of the product leaving them more vulnerable to corrosion. PVC products become brittle over time leaving them progressively vulnerable to impact damage. 			
Extreme Weather:	✓	✗	✗
<ul style="list-style-type: none"> It is a requirement of the New Zealand Building Code and the joint AS/NZS 3500 standard, for water from an overflowing gutter to flow away from the property. Lindab is designed so that excess water flows over the front edge of the gutter and away from the property. Most NZ manufactured gutters are designed with a high front. When water frequently overflows the back of the gutter it can damage the building. 			



Lindab is top coated on both the water side and the outside of the gutter.



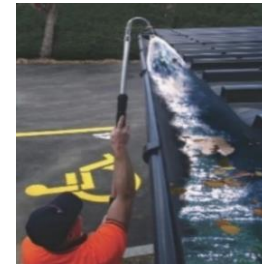
Hail damaged PVC gutter



Health & Safety:

✓ ✗ ✗

- Lindab’s external brackets allow gutters to be wand cleaned from the ground.
- The Lindab ladder bracket can be permanently mounted on the gutter, to provide safe access to the roof to undertake responsive or programmed maintenance work on one, two & three level properties.
- Lindab’s modular system allows damaged product to be replaced by the meter. The Lindab product can also be repainted.
- Most NZ steel gutters have internal brackets and product can only be replaced on a sectional basis.
- **Roof ladder brackets cannot be permanently fixed to PVC gutters.**



Fire Damage:

✓ ✓ ✗

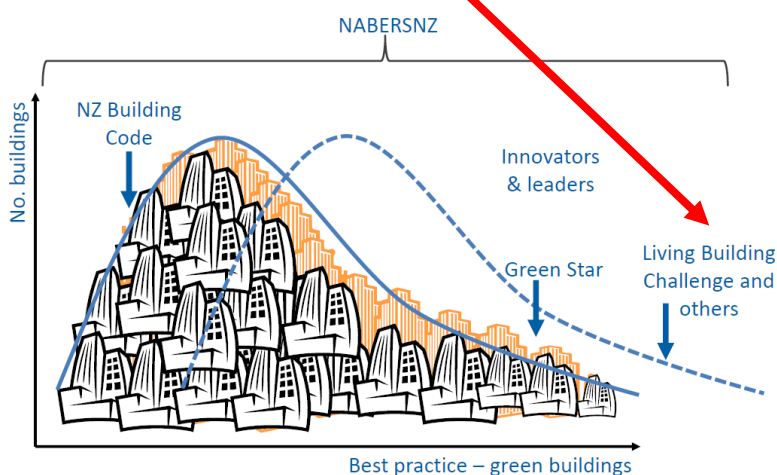
- Steel gutters are non-combustible.
- **If burnt a PVC gutter will generate highly toxic and persistent environmental pollutants.**



Recycling:

✓ ✓ ✗

- Steel is non-toxic
- Steel does not suffer any product degradation through recycling
- There are steel recycling centres throughout New Zealand, which will accept and pay for metal gutters & downpipes in any condition.
- Clean and washed PVC pipes can be delivered “free of charge” to four recycling drop off locations in Auckland, Palmerston North, Christchurch and Ashburton.
- **Dirty or contaminated PVC gutters and downpipes are disposed of in landfills where their decomposition creates harmful dioxins. This PVC gutter was manufactured in January 2017 and taken down in March 2020. It would not be accepted for recycling.**
- **PVC has been “Red Listed” as a banned product by the Living Building Challenge**



The modular steel Lindab rainwater system offers superior design, function and durability. It can be replaced in 1 meter sections, is fully recyclable and supports a Circular Economy.

