



CHINA NAVIGATION

Shipping containers turn green



Photo right:
CNCo's Green Box

Green Boxes are the new generation of eco-friendly shipping containers introduced by CNCo in its journey towards a sustainable shipping industry.



To reduce the company's carbon footprint, CNCo has invested in producing more sustainable shipping containers using water-based paint and bamboo flooring.

Containers have traditionally been coated with zinc-based solvent paints and fitted with wooden flooring. However using these materials results in a negative impact on the environment. Zinc-based solvent paints produce Volatile Organic Compounds (VOCs) emissions that have an adverse effect on health.

Additionally, due to the high zinc content, when corrosion occurs, chemicals containing zinc will leach into our seas, contaminating the water and causing harm to marine life. The material traditionally used as flooring in containers is wood, which is often sourced from un-sustainably managed forests thus contributing to deforestation.

To reduce company's carbon footprint, CNCo has invested in producing more sustainable shipping containers using water-based paint (Valspar Aquaguard) and bamboo flooring.

Valspar Aquaguard contains significantly lower amount of solvents allowing for a reduction of solvent emissions of up to 72% and poses less harm to the marine ecosystem as it is zinc-free. The newly introduced bamboo flooring is highly sustainable as bamboo plants are highly renewable, growing to full maturity in three to five years, compared to upwards of 20 years for hardwood trees used as the traditional floorings in containers.

Benefits of Bamboo flooring are:

- Lighter than traditional wood = ability to carry more cargo
- Have similar properties to wood unlike plastic and metal = high resistance to wear and tear, durable and rigid and
- lower cost



Benefits of Valspar Aquaguard include:

- Using water based paint => reduction of VOC emissions
- 2 coats of water based paint instead of 3 coats of solvent-based paints
- Valspar is more resistant to corrosion than traditionally used zinc-based solvent paint => effective barrier to keep water and oxygen from reaching metal

Scratch Test



Features of Green shipping containers:

Sustainable Flooring

- Renewable material (bamboo) 4x faster growth than regular hardwood trees
- Similar properties to all wood flooring, being biodegradable and durable due to high rigidity and thus easy to maintain

Low Carbon Footprint

- Reduction of VOC emissions up to 94%
- For every 1,000 green boxes approximately 22 tonnes of VOC emissions are eliminated
- Zinc free

Cost Effective

- Price of bamboo is lower than hardwood
- Long-term cost savings due to both paint and flooring being highly resistant to corrosion

To date CNCo has built 7,500 Green Boxes (almost 25% of our 20'DY container fleet).

Relevant Sustainable Development Goal

