



Environmental Footprint Comparative Analysis

Green engineering is the design, commercialisation, and use of processes and products that minimise pollution, promote sustainability, and protect human health without sacrificing economic viability and efficiency
- *United States Environmental Protection Agency*

Introduction

We all know that concrete and steel have a high carbon footprint. The best thing we can therefore do is make sure we protect existing infrastructure so that it does not need to be replaced

The undeniable truth is that protective coatings are solvent based. In the protective coatings space the problem is that there are no organic or carbon neutral protective coatings. Our challenge therefore is to make sure we continue to lower our carbon footprint, and improve the quality of our coatings so that they better protect our existing assets, minimise our impact on the planet and promote sustainability

What sets MCU-Coatings® apart is:

- a) Our coatings last a long time, protect the underlying steel substrate and are fundamentally better than traditional coatings, and because they last longer, they are less harmful to the planet
- b) Our coatings are applied thinner, and there is less waste when they are being applied
- c) We have reduced our VOC emissions by 30% in the last 5 years
- d) We have introduced an eco-friendly rust removal product and degreaser to our product range that is biodegradable and marine safe; and
- e) We have developed an aluminium based primer that can be used in place of zinc primers, which is particularly advantageous when working in environmentally sensitive areas

Comparative Analysis

	<u>Traditional Coatings</u>		<u>MCU-Coatings®</u>	
	Units	Carbon Units	Units	Carbon Units
Relative carbon units (baseline 100):				
Waste factor	30-50%	140	5-15%	110
Surface profile additional usage	20%	192	-	116
Coating thickness	325µm-800µm	277	225µm	116
Warranty maintenance	7.50%	298	2.50%	118
Expected service life:				
- Mechanical tool surface preparation	2-5 years	2130	+25 years	118
- Full blast surface preparation	±15 years	596	+25 years	118

Comparative reduction in the MCU -Coatings® carbon footprint:

- Mechanical tool surface preparation
- Full blast surface preparation

94%
73%

(this analysis does not include savings from utilising a high pressure water blast instead of sand blasting. MCU-Coatings® do not require high profile (+50µm) surfaces to achieve excellent adhesion)

Our Commitment

To continue our work to reduce our environmental impact, to minimise pollution, promote a more sustainable future and protect human health without sacrificing economic viability and efficiency