

A photograph of a wooden deck path in a garden. The path is made of weathered wooden planks and runs diagonally from the bottom left towards the top right. To the left of the path is a dense bed of tall green reeds. A small white bird is visible among the reeds. To the right of the path is a grassy area and a stone wall. The background is a dark, dense forest.

Wood-free decking:

# A sustainable choice

[millboard.co.uk](http://millboard.co.uk)

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## A FOCUS ON SUSTAINABILITY.

Millboard is the world's only hand-moulded Polyurethane wood-alternative decking. Setting out to replicate the beauty of natural timber without any of its inherent flaws, we created Millboard decking – a premium wood-free outdoor flooring. Its wood look is so authentic that most people never realise that it isn't wood, but its wood-free construction ensures the preservation of natural forestland.

Millboard decking is a low-carbon material that has been rigorously tested to ensure our production has minimal impact on the environment. We are proud to be the first premium outdoor flooring company in the world to have its carbon footprint independently verified and UKAS accredited, to the international standard ISO 14064-1 Verified Carbon Footprint Assurance Mark. Sustainability is a crucial element of the company's ethos, and we are committed to producing decking that enhances the outdoors without damaging the planet.

Statistical information within has been sourced from:

Isopa: [www.polyurethanes.org](http://www.polyurethanes.org) | Huntsman: 'Blowing agent options for insulation foam after HCFC phase out'

Isopa: Polyurethane Sustainable Materials | Procedia: Recycling and disposal methods for polyurethane foam waste





## LOW CARBON FOOTPRINT

1.31kg CO<sub>2</sub>/M<sup>2</sup> to ISO 14064.

Our manufactured products were verified to the international standard ISO 14064 by a UKAS accredited testing laboratory, resulting in a low carbon footprint of 1.31kg/CO<sub>2</sub> per m<sup>2</sup>. This proves that Millboard has a limiting effect on our contribution to climate change and our environment.



## BIOPOLYMERS

Made using renewable biopolymers.

The Lastane layer on the boards is made partly from renewable raw materials, utilising biopolymers/natural oil polyols as opposed to a petroleum-based material. Natural oil polyols are derived from naturally occurring vegetable oils, therefore represent a fully renewable raw material base.



## RECYCLED FILLERS

Made using recycled minerals.

Over a third of the raw materials used for making the structural core of Millboard is recycled. These materials have been diverted from waste streams and reprocessed to create premium ingredients for our boards. This helps to sustain the earth's limited resources and prevents waste unnecessarily going to landfill sites.



# THE MILLBOARD SUSTAINABILITY JIGSAW MODEL

We have used this jigsaw model to show the interconnected nature of Millboard's production and processes. From manufacture to delivery, sustainability is a major consideration.







## TYPE OF MATERIAL

While most composite decking boards are thermoplastic (melted plastic mixed with wood), the structural core of Millboard is a blend of natural minerals bonded in a polymer resin – such composite materials are designed to provide mechanical strength, chemical resistance and durability.

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Polyurethane is inert, safe and extremely versatile, and its production process uses less than 0.1% of oil consumed worldwide, saving 14.5 million tonnes of CO<sub>2</sub> in Europe each year – that's equivalent to one year's worth of electricity use in two million homes.



## METHOD OF MANUFACTURE

Processing Polyurethane is more energy efficient than processing thermoplastics. The production process of Millboard decking also replaces problematic HFCs with water as a blowing agent, reducing the Global Warming Potential and eliminating Ozone Depletion Potential.





## TRANSPORT TO SITE

Millboard decking is made in the UK, so transportation of materials and product is kept to a minimum when it is used on UK projects, further reducing negative environmental impact. Millboard decking is a lightweight product, making it cost effective to transport; being almost half the weight per cubic metre of some conventional composite decking materials means more boards can be transported on fewer trips, so reducing CO2 emissions from road traffic.



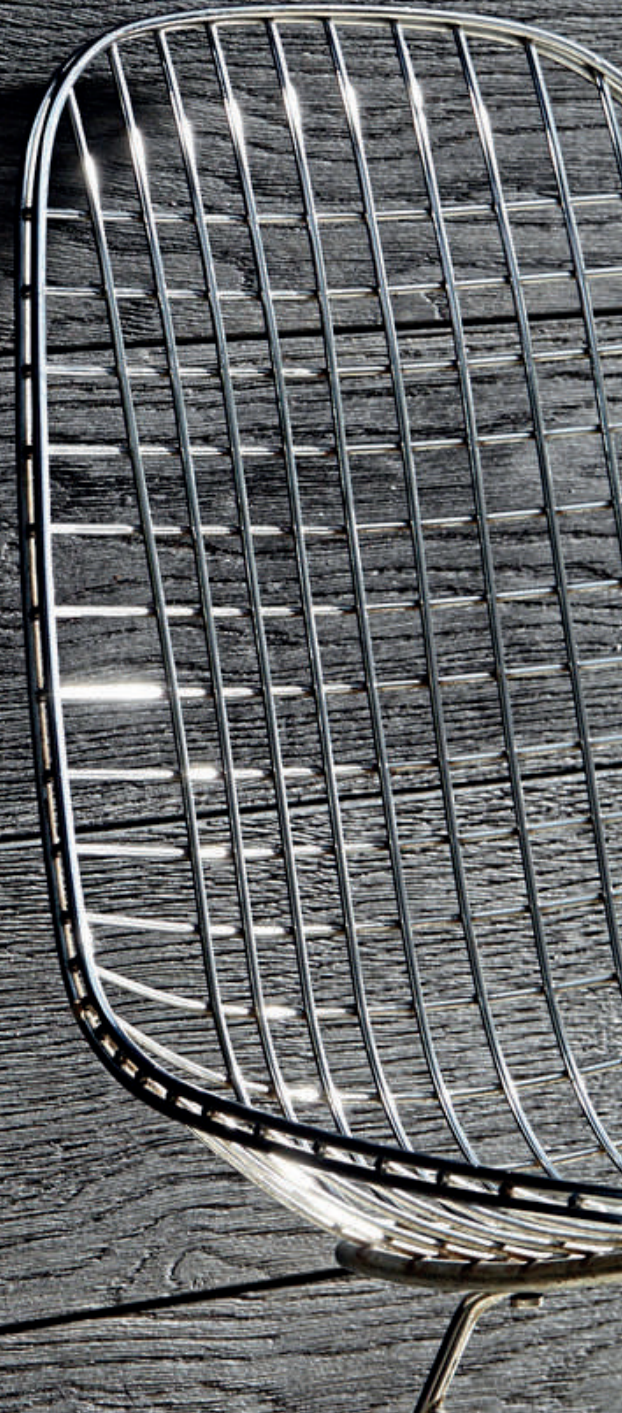
## PACKAGING

The packaging we use to cover the pallets for transport safety is fully recyclable, as its lighter than other packaging, this adds to transport economy. Due to the stability and non-porous character of Millboard decking this enables it to be stored outdoors with zero covering, further reducing the requirement for plastic-based packaging materials.



## EFFICIENCY IN USE

As a building material, Polyurethane has a lifespan of 50 years or more, which means demand on global resources decreases. Our boards require minimal maintenance, therefore reducing the need to use potentially harmful cleaners or preservatives.







## PRODUCT WASTAGE

The Millboard manufacturing process creates minimal wastage because boards are moulded to specific sizes and any wastage can be recycled. During installation, 100% of the board can be utilised – that's a much greater percentage than using timber, which can generate up to 15% wastage due to natural defects.



## ABILITY TO RECYCLE

Millboard decking can be recycled or reused in a variety of ways. It can be reground and recycled as a Polyurethane filler and used within building materials, such as concrete. It can also be reworked in its existing form and put to alternative uses such as path edging or creation of planters. Incineration provides effective energy recovery, releasing the same amount of energy as the Polyurethane contained at the beginning – 1kg of Polyurethane can produce energy equivalent to 1kg of coal.

At Millboard, we are exploring the use of reground filler from our own decking material within the manufacture of new products, to create a complete sustainability loop.





Complementing and  
conserving natural beauty.

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