
NOMA
PACK®
NOT MADE
FROM
CARDBOARD.
AND THEREFORE
ECOLOGICAL.
nmc
SOLUTIONS
FOR INDUSTRIES

RECYCLING.

# A HIGHLY TOPICAL ISSUE

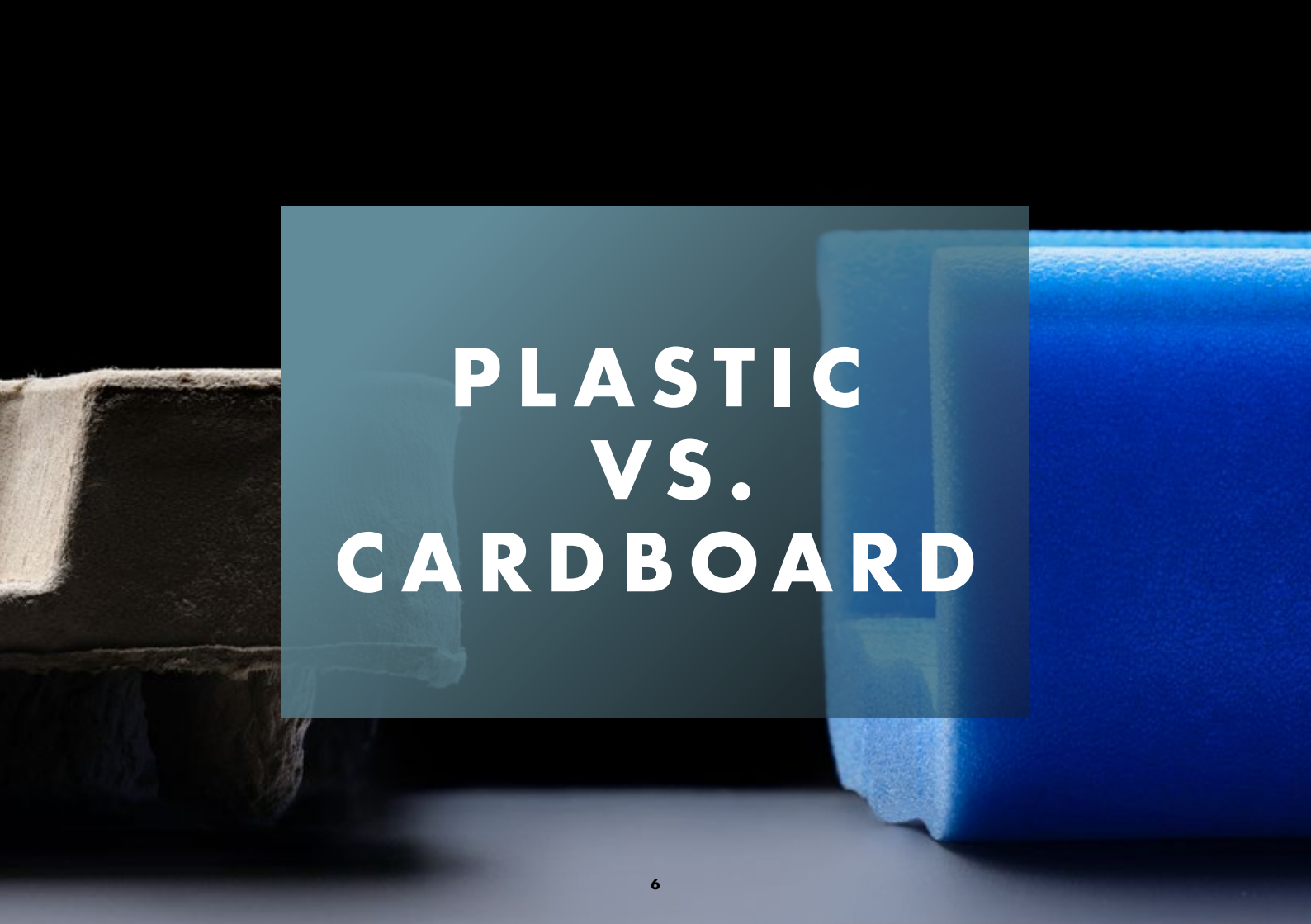
The reputation of plastic packaging has never been so bad. For many of us, synthetics inevitably conjure up images of mountains of plastic waste floating on the surface of the world's oceans and litter piling up on the beaches of the most beautiful holiday destinations. Yet plastic is one of the most essential raw materials of our time. Plastic has improved people's quality of life in many ways over the past decades. But this does not mean that plastic, glass, paper, cans and other waste should be allowed to end their lifecycle discarded in landfill or disfiguring the natural surroundings! The huge volume of waste produced by mankind represents a real nuisance for our planet. Hence the importance of preventing plastic packaging from ending up in the environment. Plastic waste needs to be collected, sorted and recycled properly. Responsible, efficient and collective waste management is the starting point for achieving this aim – and involves each and everyone of us equally. Because plastic packaging doesn't have to be part of the problem – it is part of a future-oriented solution!

# RECYCLING IS NOT A PASSING TREND.

# IT'S THE SOLUTION TO A WASTE PROBLEM ON A GLOBAL SCALE.

One thing is sure: recycling makes a significant contribution towards protecting the environment. The need for natural resources would diminish significantly if we were to recycle the materials that already exist one or more times. Better still: smart recycling enables us to save considerable quantities of energy and water – which is another way of helping to preserve the climate.

Did you know? The European Union set its sights on using recycling to achieve its climate targets. In fact, the EU stipulates that 50 % of the plastic packaging used across its territory must be recycled by 2025. By 2030, this figure is even to rise to 55 %.


PLASTIC
VS.
CARDBOARD

# RECYCLING CAPABILITY AS AN INDICATOR

The methods used for recycling plastic and cardboard packaging have improved dramatically in recent years and the range of recycled products on offer never ceases to become more diversified. There is a simple reason for this: recycling enables us to make huge savings on water and energy. In fact, recycling plastic actually saves much more than recycling cardboard. It's a fact that paper and cardboard can only be recycled six to seven times, whereas in principle, some of the new plastic polymers can be recycled an infinite number of times, using the latest processes.

# IS CELLULOSE MORE ENVIRONMENTALLY FRIENDLY THAN PLASTIC?

# JUST AN IDEA THAT THE FACTS DO NOT SUPPORT!

The demand for protective profiles made mainly of paper is growing steadily. But this trend is based on a number of incorrect assumptions. It's a fact that the CO2 balance of cardboard over its entire lifecycle is not necessarily better than that of plastic, even though cardboard is a natural raw material at the outset.

This is why many industry experts continue to believe that paper/cardboard packaging solutions will not be able to fully replace plastic packaging. That's because, in addition to its excellent recyclability, which saves water and energy,


plastic has advantages that no packaging made of paper or any other material is able to offer. In particular, these benefits include lower weight, exceptional service life durability and the particularly efficient use of resources.

# WHY PLASTIC IS THE MOST CLIMATE-FRIENDLY MATERIAL

## 1 DURABILITY AND SHOCK ABSORPTION

Whenever packaging needs to be particularly strong and durable, plastic is the solution of choice. The shock absorption capacity of foam packaging is significantly higher than that of a comparable cardboard equivalent. As soon as it receives its first knock or impact, cardboard packaging crushes and does not return to its original shape. This means that protecting the product inside can no longer be guaranteed. Foam also has a head start when it comes to distortion and compression capabilities.

## 2 LOWER IN WEIGHT

In recent years, many manufacturers have made efforts to reduce the weight of their packaging. Plastic scores well in this area, because it has a much lower density than cardboard. To achieve the same tear resistance, paper packaging is approximately twice as heavy as an alternative in synthetic foam. This means that transporting goods generates significantly fewer $CO_2$ emissions – which is a great advantage, especially in view of the rapidly growing market for electric vehicles.

## 3 GREATER EFFICIENCY IN THE MANAGEMENT OF RESOURCES

The production of primary synthetics requires the use of oil, which is a finite resource. Yet despite this, the environmental footprint of plastic is better overall than that of cardboard. The manufacture of plastics involves efficient, state-of-the-art processes that require far less energy than for the production of paper and board. The quantity of water required for primary plastic is also significantly less than the amount needed for cardboard.

## 4 NO DESTRUCTION OF LANDSCAPES

It has been firmly established that deforestation is partly responsible for the greenhouse gas emissions generated by human activity. Paper and cardboard are made from these natural resources. Cutting down trees not only releases $CO_2$, it also requires a huge area of forest and woodland to be used for replanting and forestry. But plastic is a synthetic product and so does not depend on the exploitation of landscape resources.

## 5 GOOD RESISTANCE TO WATER

Obviously, when cardboard and plastic each come into contact with water, foam behaves better because it has very good water absorption and resistance properties. Whereas cardboard softens and eventually breaks, plastic can absorb a certain amount of water and resist moisture, even over an extended period of time.

## 6 NO PROBLEMS WITH COMPOSITE MATERIALS

To enable protective cardboard profiles to have the same properties as foam, it is often necessary to apply an additional layer. Unfortunately, this protective layer – which may appear practical at first sight – complicates the recycling of cardboard and often will only allow for 'downcycling'. As a result, the recycled material produced is of lower quality than the original material and generally offers less flexibility when reused.

## 7 SLOW DECOMPOSITION

Paper decomposes quickly, but most people are unaware that this process also releases a harmful gas, methane, which has 25 times the greenhouse gas effect of CO2! Plastic decomposes much more slowly, with almost no measurable release of gas. However, it should be pointed out that the decomposition process of plastic can take anything between 400 and 1,000 years – which presents a real problem for landfills and the environment in general. So, the solution is as clear as day: plastic should not simply be disposed of, but recycled.

# PLASTIC SCORES POINTS THROUGHOUT ITS LIFECYCLE

Cardboard or plastic? Both materials have advantages and disadvantages for the safe packaging of all kinds of goods. With our innovative and clever foam packaging solutions, we at NMC aim to set the benchmark. To achieve this, we invest heavily in the sustainability of our products and use recyclable – and therefore more environmentally friendly – plastics. What's more, we operate in a closed loop, which enables us to reuse almost 100% of the waste generated internally by the production process. In this way, we are able to combine the many advantages of robust foam packaging with the environmental demands of our time. It's our way of contributing to a future in which generations to come can also enjoy the beauty of our planet!

# THE ACTIVE CONTRIBUTION WE MAKE TO PROTECTING THE CLIMATE

### 100 PER CENT RECYCLABLE

Our products are made exclusively from fully recyclable and therefore environmentally friendly plastic.

### INVESTING IN SUSTAINABILITY

We use specific technologies to prepare the recycled pellets for processing as part of an extremely precise production process.

*In unserem Hauptwerk in Belgien setzen wir ausschließlich auf grünen Strom. Ein Fünftel dieses Stroms produziert unserer eigene Photovoltaikanlage.*

## CLOSED CIRCUIT

We manufacture exclusively based on the closed loop principle. This means that even plastic waste generated internally can be reused almost 100% in production – again and again!

## 30 PER CENT RECYCLED RAW MATERIALS

We are constantly working to increase the proportion of recycled materials used in our packaging solutions. Currently, the proportion of recycled material is already at 30% for almost all of our products – a figure that is still rising. The proportion of recycled material is checked and certified by PolyCert Europe.

CERTIFIED

RECYCLED CONTENT QA ECO-DATA POLYMERS

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