APEAL

STEEL FOR PACKAGING

Why Steel?


Choose Steel for Packaging
Eco-friendly alternative
easy recycling
safer stronger packaging
fresh for longer
cut food waste
superior metallic finish
shelf life champion
fast and efficient filling
100% barrier protection
unique formability
no spoilage
greater differentiation
multi-layer stackability
no additives
great value
Multiple Recycling
recycles forever
endless variety
retail ready packaging

Message from the President

The global focus on sustainability is greater than ever before.

I was therefore excited to begin my presidency of APEAL at a time of great innovation in the industry and I look forward to working with stakeholders throughout the value chain to support this sustainability focus at every level.

Steel is an integral part of the EU effort to achieve the resource efficient vision for Europe and a greener future, the ultimate aims of the European Green Deal. The European Steel Industry's transition to a low carbon future is well underway and all APEAL members will continue working with stakeholders throughout the value chain to reach carbon-neutrality by 2050 at the latest, with relevant CO2 emissions reduction targets by 2030.

In addition, steel packaging is ideally positioned to continue playing a significant role in global food security challenges, providing a proven means to package and preserve food safely and efficiently, whilst helping to reduce energy consumption throughout the supply chain and at home with refrigeration-free transport and storage.

The efficiency of steel packaging is now more important than ever in the drive to reduce waste and create a circular economy. It is vital that packaging formats are easy to collect, sort and recycle, in order to support the European Commission's drive to reduce packaging waste and help consumers to play their part in a more circular economy.

APEAL has also recently focused significant attention on closing the loop of steel recycling through promotion of separate collection amongst other actions, releasing its report, Why Steel Recycles Forever, and APEAL will strive for greater focus on ensuring that no recyclable packaging goes to landfill.

Permanent materials such as steel are too valuable to waste.

While the years ahead will present many significant challenges, steel packaging will undoubtedly play a vital role in helping us all to enjoy the benefits of a more sustainable and resource efficient economy in Europe.

I look forward to steering APEAL as the team continues to work with the European Commission, European Parliament, Member States and all stakeholders to deliver on these ambitious plans.

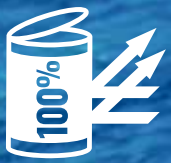
Luc Brantjes
President of APEAL

Protecting Today

Steel for Packaging protects products and cuts waste at every stage in the supply chain and beyond.

Saves taste and cuts waste

Food packaged in steel retains its flavour and nutritional value longer than in any other packaging format. It contains the equivalent vitamin content to freshly prepared food and portion-sized packaging allows consumers to choose the size they need and cut waste.



Unique 100% barrier protection

Steel packaging is impermeable to light, gasses and liquids and provides greater product protection than any other material, delivering your brand's promise of quality in a format consumers can trust.

Unbeatable strength

The mechanical strength of steel packaging makes it impact-resistant, puncture-resistant, and virtually unbreakable in the supply chain, minimises damage, loss and waste and provides optimal resistance to high-pressure filling of aerosol cans.

"Capturing food in productive years, steel packaging provides unbeatable protection, balancing production with consumer demand and reducing food waste."

The most competitive FMCG packaging solution today

Steel for packaging provides the most competitive solution for fast moving consumers goods chains and e-commerce being easy to load, stack and store, optimising warehouse space and saving handling costs. It is easy to handle, impossible to spill or break and eliminates the waste and spoilage associated with other packaging formats.

Multi-layer stackability

Steel cans require virtually no secondary packaging for protection and are strong enough to allow multilayer stacking being able to resist high axial loads – up to 10 times higher than beverage cartons for example.

How steel stacks up against other packaging materials

36 mths	0 + total light barrier	500 units/minute for cans	85.5%	Infinite


18 mths


12 mths


Shelf life


<1.0


<1.0 with aluminium foil
17.4 with EVOH


Oxygen intake

measured in cm^3 / m^2 / day / 1 bar atmosphere, for 100 microns thickness of packaging


400 u/m


240 u/m


Top filling speeds


38%


30%


Recycling rates


6


1


Maximum number of recycling loops

Sources Shelf life & Oxygen intake: industry expert. Filling speeds: Tilisco study for MPE, high speed rates
Recycling rates: APEAL & ACE 2018 data, Eurostat 2020 data. Number of recycling loops: industry expert
Beverage Cartons: Tetra Pak, 2022 Go Circular Business Summit, Antwerp

Design for the 21st century

Unique formable properties

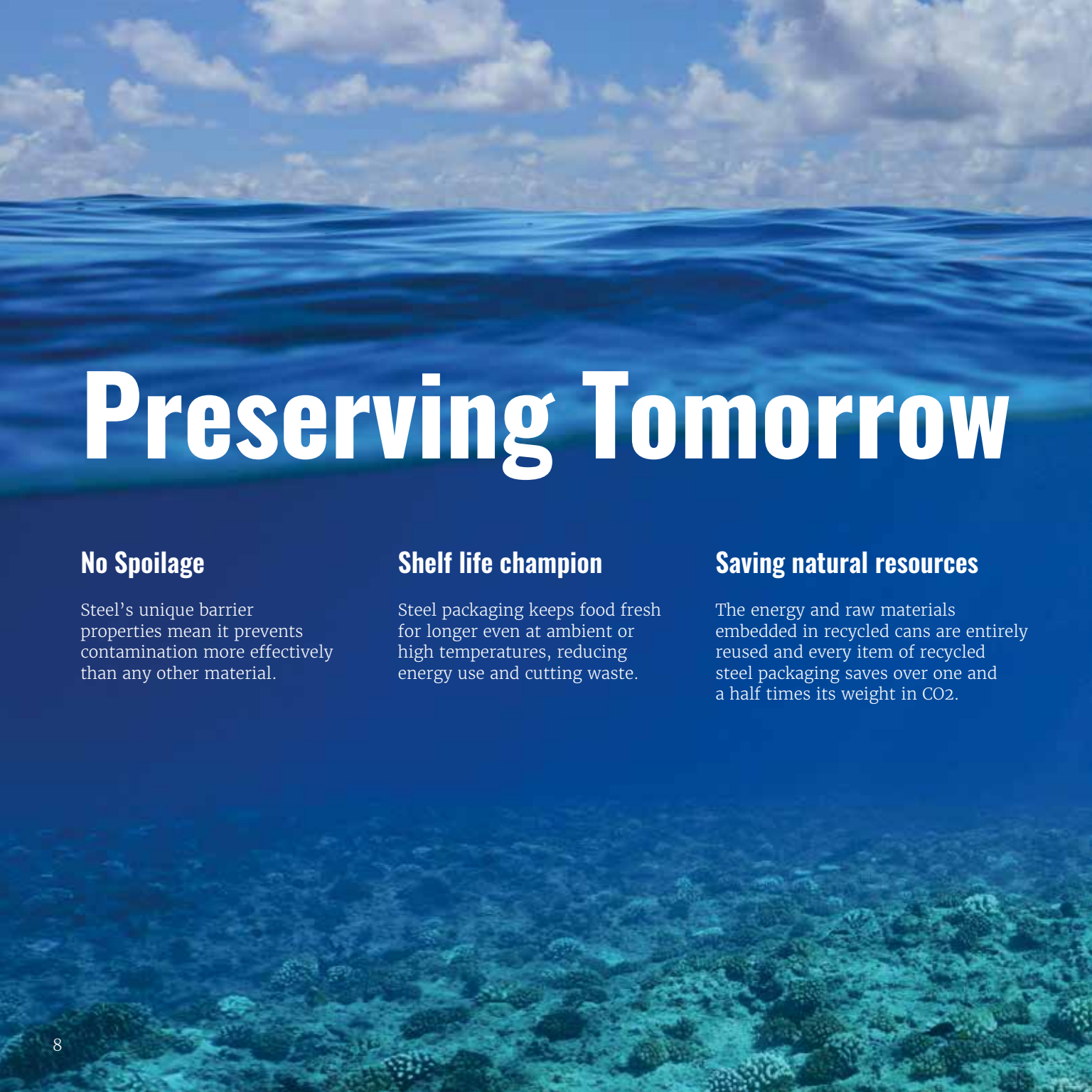
Shaping, embossing, debossing, specialist printing and lacquers differentiates your brand.

High-quality metallic aesthetics

Matt or gloss opportunities for primary and secondary packaging with 360° of printable space.

Endless variety in shape and volume

Complete product range for every target group from 50ml to 40l.



Preserving Tomorrow

No Spoilage

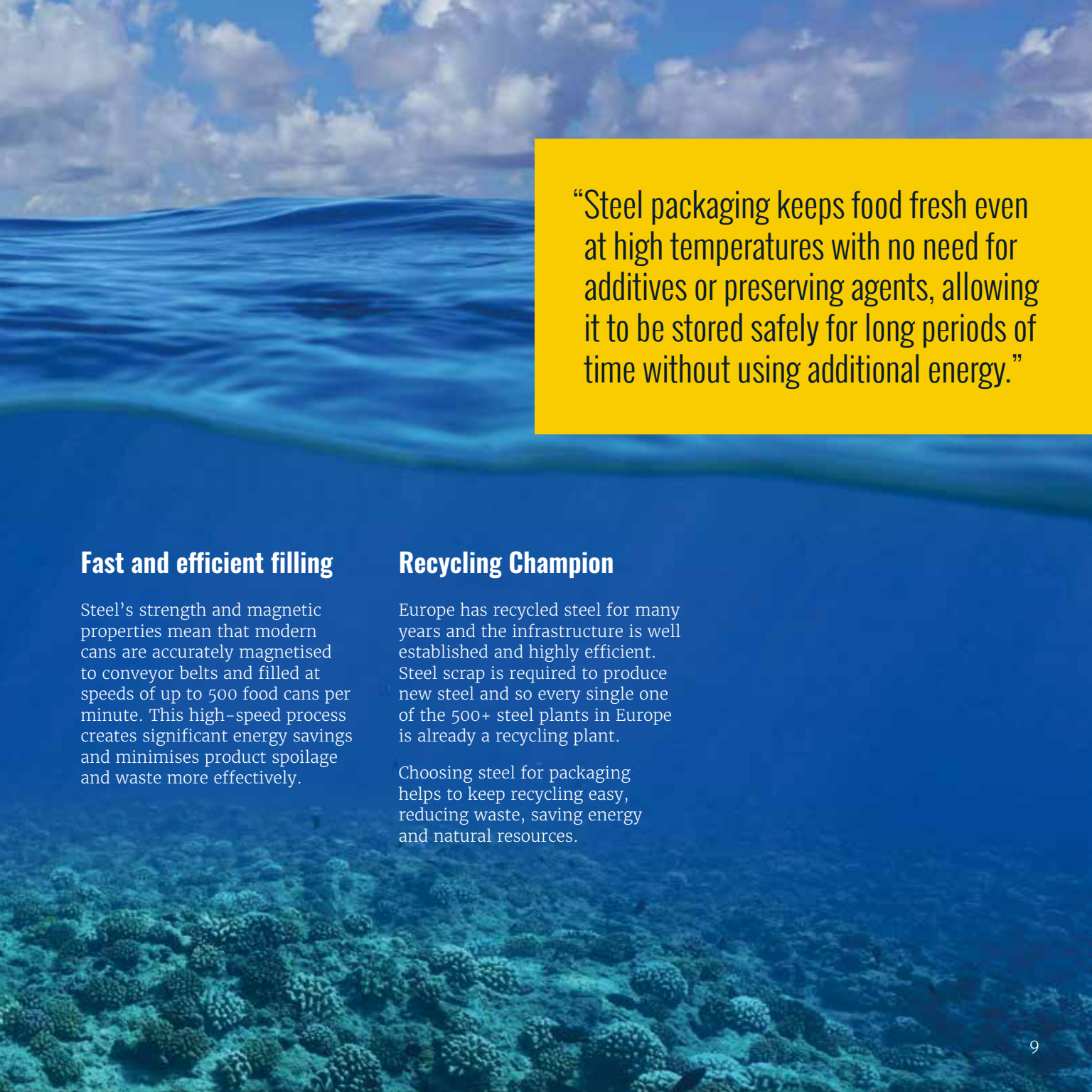
Steel's unique barrier properties mean it prevents contamination more effectively than any other material.

Shelf life champion

Steel packaging keeps food fresh for longer even at ambient or high temperatures, reducing energy use and cutting waste.

Saving natural resources

The energy and raw materials embedded in recycled cans are entirely reused and every item of recycled steel packaging saves over one and a half times its weight in CO_2.



"Steel packaging keeps food fresh even at high temperatures with no need for additives or preserving agents, allowing it to be stored safely for long periods of time without using additional energy."

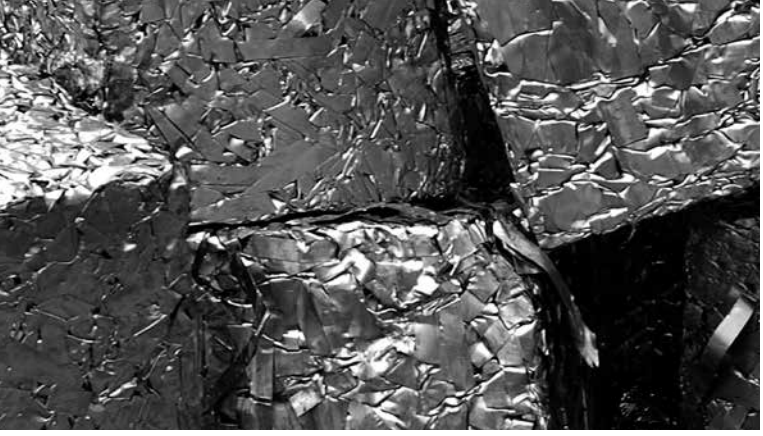
Fast and efficient filling

Steel's strength and magnetic properties mean that modern cans are accurately magnetised to conveyor belts and filled at speeds of up to 500 food cans per minute. This high-speed process creates significant energy savings and minimises product spoilage and waste more effectively.

Recycling Champion

Europe has recycled steel for many years and the infrastructure is well established and highly efficient. Steel scrap is required to produce new steel and so every single one of the 500+ steel plants in Europe is already a recycling plant.

Choosing steel for packaging helps to keep recycling easy, reducing waste, saving energy and natural resources.



"100% of the steel recycled is used to make new steel products."

The rise of 'real recycling'

In recent years the packaging landscape has changed dramatically.

The dual challenge of achieving a more circular economy and driving greater sustainability across all packaging formats has placed increasing importance upon defining recyclability and positioned 'real recycling' high on the political agenda.

EU legislation adopted in 2018 means that higher recycling targets will take effect for most packaging materials in 2025, along with the introduction of specific legislation limiting non-recycled single use plastics. At the same time, the new EU recycling rate calculation methodology which guarantees that only the accepted tonnages at the entrance of the recycling operations are used to calculate the recycled tonnages, instead of collected or sorted tonnages, has served to create a level playing field, not only for the Member States, but also for the packaging materials. It means that only real recycling will be reported.

Early 2020 the European Commission adopted the Circular Economy Action Plan (CEAP 2.0), one of the building blocks of the European Green deal, with objective that all packaging on the EU market be reusable or recyclable in an economically viable way by 2030.

Most recently, the European Commission's Packaging and Packaging Waste Regulation (PPWR) proposal, published in November 2022, introduces 'recyclability performance grades' based on design for recycling criteria to be stimulated through the eco-modulation of the Extended Producer Responsibility fees, along with waste reduction targets and a definition of what constitutes recycling at scale.

Ultimately, for Europe to achieve its vision of moving to an efficient, waste-free and circular economy, brands need to recognise the importance of using permanent materials that can maintain multiple material loops without loss of quality and where 100% of the output is used to make new products.

Steel for packaging is a proven model of circularity. Magnetic properties make steel the easiest and most economical packaging material to recover from any waste stream, steel scrap is a requirement in the process for new steel and it can be recycled forever without loss of quality. It is estimated that 75% of all steel products ever made are still in use today[1].

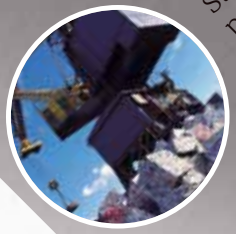
It is APEAL's hope that the new regulations will illustrate the importance of real recycling, stimulate innovation in packaging design and convince more brands to focus on sustainability by adopting permanent materials such as steel.

[1] World Steel Association: www.worldsteel.org

Innovating for a Circular Economy

100% recyclable

Steel is already the most recycled packaging material in Europe and all steel products can be processed and recycled endlessly.



Stronger, thinner and lighter

Three-piece food cans are 29% thinner and beverage cans are 30% lighter than 30 years ago.

A zero-carbon future

Steel is revolutionising its primary production processes in the EU, committing to reach carbon-neutrality by 2050 with relevant CO_2 emissions reduction targets by 2030.

Chrome free passivation

A sustainable and green alternative developed by APEAL members for the passivation of tinplated steel.

APEAL

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Steel is a permanent material that can be infinitely recycled without any loss of quality

Worldsteel estimates that 75% of steel products ever made are still in use today

APEAL – the Association of European Producers of Steel for Packaging – unites the six producers of steel for packaging in Europe. Founded in 1986, APEAL represents:

Acciaierie d'Italia · ArcelorMittal · LIBERTY · TATA STEEL · thyssenkrupp · U. S. Steel Košice, s.r.o. A Subsidiary of United States Steel

METAL recycles forever™