#### **THERMOFORMED SOLUTIONS**

## SUSTAINABLE PLASTIC PACKAGING MADE FROM HIGH RECYCLED CONTENT





WE SAVE RESOURCES IN SUPPLY CHAINS, FOR A BETTER TOMORROW

### Sustainable plastic packaging Designed for your supply chain



THERMOFORMED TRAYS



**REFLEX®** CUSHIONING SOLUTIONS



Nefab's thermoformed solutions are sustainable trays and cushioning applications made from high recycled content. Ideal for automated lines that require precision packaging due to robotic handling, our solutions are highly customizable, protective, and engineered to match specific product requirements and regulations. Nefab's thermoformed solutions are available globally for several industries, including the Automotive, Electronics,

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# Types of recycled content

Telecom, Aerospace, and Lithium-ion Battery (LiB) segments.

Tailor-made to your needs



- 100% recycled content materials can be recycled up to 50 times (up to 10 times more than paper)
- Recycle content is readily available
- Ocean bound plastic is also an option to reduce ocean pollution



- Materials run in a closed loop or circular flows
- Locally optimized logistics lowers CO<sub>2</sub> in transport
- Enabled by Nefab buy-back of trays guaranteeing circularity

#### HIGH RECYCLED CONTENT

- Made primarily from recycled plastics and 100% recyclable materials
- Efficiently applicable to one-way flows, return flows, circular flows and automated lines





#### HIGHLY PROTECTIVE AND CUSTOMIZABLE

- Highly customizable and protective thermoformed solutions
- Tailor-made according to customers' needs
- Designed, prototyped and tested in our ISTAcertified labs by our Global Engineering Network

#### REDUCED CO<sub>2</sub> AND TOTAL COST

- Smart, sustainable plastic packaging applications that require less plastic material and less labor compared to foam and paper
- Our products reduce costs and CO<sub>2</sub> through the entire supply chain

### The perfect packaging Time and time again

**Thermoformed solutions** are a result of a process called thermoforming or vacuum forming. This is the manufacturing process where a plastic sheet is heated to a pliable forming temperature, formed to a specific shape in a mold and trimmed to create a usable product.

**This molding quality** is also the reason why thermoformed solutions are considered sustainable plastic packaging products. They can be molded in different shapes and sizes, collected, cleaned, grinded, and re-extruded. Besides, thermoformed applications are usually light and nestable, which means less material is required to pack, store, and transport products.

Because they can be reduced, recycled, and reused, thermoformed solutions are perfectly fit to return and circular flows.

### Making plastics circular Reduce, reuse, recycle



STEP 5 New raw material produced as a result of the re-extrusion STEP 2 After cleaning (when needed), the plastic waste goes through a milling process



Production of recycled thermoformed packaging STEP 3

The result is grinded material ready for re-extrusion process

### Made from sustainable sources Ready to reduce carbon footprint

**Nefab's thermoformed solutions** are made from different sustainable sources according to each customer need and requirement, from virgin materials to recycled plastics, such as ocean bound plastics. Besides being more sustainable in comparison to foam and paper, our solutions are lighter, offer improved protection, and save space due to high stackability.



Based on LCA simulations in SimaPro & GreenCALC.

Circular plastic solutions provide an average of

60% CO<sub>2</sub> equivalent savings

compared to virgin materials.

### A packaging solution for fully circular flows

- Materials applicable to fully circular flows
- Logistic flow customized to each customer need
- Possibility to buy packaging back at the end of their lifecycle
- Up to 60% reduction in CO<sub>2</sub> emissions



#### Awardwinning thermoformed solutions

Nefab's thermoformed solutions are recognized as global references in sustainability and innovation by the WorldStar Global Packaging Awards.

## Lithium-ion Battery (LiB)

- Innovative, highly engineered thick gauge design solutions tested in ISTA-certified labs, meeting UN test standards
- 100% recycled content available
- Fully plastic solutions are lightweight compared to steel
- Twin side offerings for greater stiffness and impact resistance
- Works well in automated lines and robot handling

### Automotive

- Our solutions in this range are ideal for automotive and LiB customers for a variety of applications
- Maximum thermoforming size: 2450 mm x 1450 mm
- Maximum thickness: 12-14 mm
- Typical raw materials: PS, PSPE blend, HDPE, ABS



## Telecom and Datacom

- Nefab offers Reflex<sup>®</sup> cushions, the industry leader in thermoformed cushioning solutions
- High product protection that outperforms foam while using 100% recycled plastic
- ISTA-certified lab tests engineered to meet each product's shock protection requirements
- Highly nestable, which saves up to 85% of warehousing space compared to foam

REFLEX<sup>®</sup> CUSHIONING SOLUTIONS



Light

#### EXAMPLES OF APPLICATIONS



Cells Typical sizes: 400 x 600 mm



Modules Typical sizes: 1200 x 1000 mm



Battery packs Typical sizes: 2000 x 1200 mm

#### EXAMPLES OF APPLICATIONS



Battery system



Indicator Lights



Brake rotors



Injectors



Climacompressors



Door decorations

#### EXAMPLES OF APPLICATIONS



Medium





## Global supply & local service



We save environmental and financial resources by optimizing supply chains. It's about innovating together to create smarter packaging and logistics solutions while always respecting people and ethical standards. This contributes to a better tomorrow for our customers, for society and for the environment.



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