

INSPIRATION CATALOGUE

Solving complex healthcare comfort challenges

Where healthcare comfort is designed
around real needs

Designing comfort solutions for healthcare products is rarely a simple task.

Seating cushions, mattresses and positioning supports must relieve pressure, remain durable during long periods of use and meet strict hygiene requirements. At the same time, it is typically part of a larger product it needs to fit into, e.g. a bed frame or chair chassis.

Standard components do not solve these challenges. This is where customised foam solutions make a difference.

By adjusting shapes, dimensions and material compositions, comfort components can be developed to match the exact requirements of each product. At the same time,

the increasing sustainability reporting and compliance demands are important factors in healthcare product development. And it can be difficult to find a material that supports these demands.

Recycled materials, biomass-balanced foam and circular approaches to material use make it possible to reduce environmental impact without compromising performance.

This catalogue brings examples of foam based solutions used in healthcare products and how customised constructions can help solve complex comfort challenges with sustainability kept in mind.

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Seating

Customised comfort designed around your product

Seating solutions used in healthcare products must perform reliably during extended use. They must relieve pressure, provide stable support and maintain their shape over time.

At the same time, seating cushions often need to fit precisely into the design of the final product. Dimensions, shapes and performance requirements can vary significantly between applications.

With foam, it is possible to adapt to these requirements.

The seating solutions could include:

- > Moulded cushions
- > Cut foam cushions
- > Layered constructions
- > Pressure relieving materials
- > Memory foam options

Different foam types and densities can be combined to achieve the required balance between pressure relief, support and durability. Shapes and dimensions can also be customised to match your needs.

Material selection can also support sustainability goals. It is possible to choose a material with lower carbon footprint compared to conventional fossil-based alternatives.

For example, alternative raw material approaches such as **Biomass Balance foam** and/or recycled bonded foam can be used while maintaining the required comfort and performance.



CASE

Same performance and price – from conventional foam to biomass balance approach in wheelchair solution

A healthcare customer was looking for a seating cushion that matched their existing product in both performance and price.

Changing the supplier would only make sense if the solution could also support their sustainability ambitions.

A customised moulded cushion from BPI was developed that matched the existing comfort properties and durability while introducing more sustainable material options.

Today, BPI produces around 100,000 wheelchair cushions to different wheelchair manufacturers each year based on this solution.

Mattresses

Customised constructions for demanding healthcare environments

Healthcare mattresses must provide consistent pressure relief while remaining durable and hygienic during long periods of use. Different foam materials can be combined in layered structures to achieve the required support, elasticity and pressure distribution.

For example:

- > Layered foam constructions
- > Custom dimensions
- > Recycled foam materials
- > Biomass balance foam
- > Pressure relieving top layers

High resilience foams such as **PureBio** provide durable support and help mattresses maintain their shape over time. Viscoelastic foams such as **TemptraFlex Biomass Balance** adapt to the body and help distribute pressure more evenly.

Some mattress constructions also include bonded foam produced from recycled mattresses, Setex® Post-Consumer. This material can be used as a durable base layer while supporting circular material use.



CASE

Turning used mattresses into new comfort solutions

Every year, millions of mattresses are discarded across Europe. Many of them still contain materials that can be reused. A Dutch healthcare manufacturer had the goal to create a mattress with the lowest carbon footprint possible, while making it circular. That was a perfect match to our two product initiatives: recycled bonded foam and mattress foam made with the biomass balance approach.

Used healthcare mattresses are collected and recycled into bonded foam. This material can then be used as a base layer in new mattresses. Combined with raw materials, the solution helps reduce the carbon footprint of the product.

The result is a circular mattress solution with lower product carbon footprint and a stronger sustainability profile.

Would you like us to develop your customised solution?

We work closely with you to ensure that our solutions meet your expectations for quality and ultimate comfort.

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Supporting aids

Customised comfort for positioning cushions, wedges, tubes, pillows and other shapes

Pillows and positioning products are widely used in healthcare products to support the body and maintain stable positioning.

The solutions range from:

- > Head pillows
- > Wedges
- > Tubes
- > Shaped positioning cushions
- > Adjustable pillows

Different applications require different constructions. Foam materials allow both the shape and the performance of the product to be adjusted.

Foam types, densities and layer structures can be combined depending on the required level of support and pressure relief.

Some pillow constructions also allow the level of support to be adjusted after production. Pillows filled with foam granules can be modified by adding or removing filling.

This flexibility allows customers to develop positioning solutions that match the design and function of the final product while also allowing materials to be selected with sustainability considerations in mind.



CONTACT

Do you have a comfort challenge we haven't solved yet?

Healthcare products rarely come with standard requirements. New applications often demand new materials, shapes and constructions. Customised foam solutions make it possible to develop comfort solutions tailored to the exact needs of your product.

Let's explore how we can support your next healthcare project.

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