

## the hidden invention.

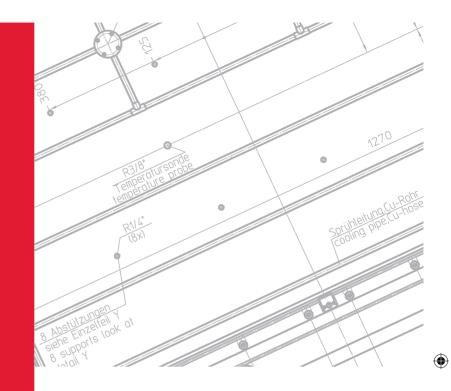
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DISCOVER WHAT 'Particle Foam Engineering' means at HSV

Particle foams bring the impossible to life. Possibilities that lead our engineers to think in terms of solutions, not products and develop these solutions with you, our client: engineering in co-creation.

Your gain from cooperating with HSV? Our solutions add value in numerous sectors and yield quick returns. They already have in the automotive industry, aviation, pharmaceutical and medical technologies, foods, manufacturing, and logistics.

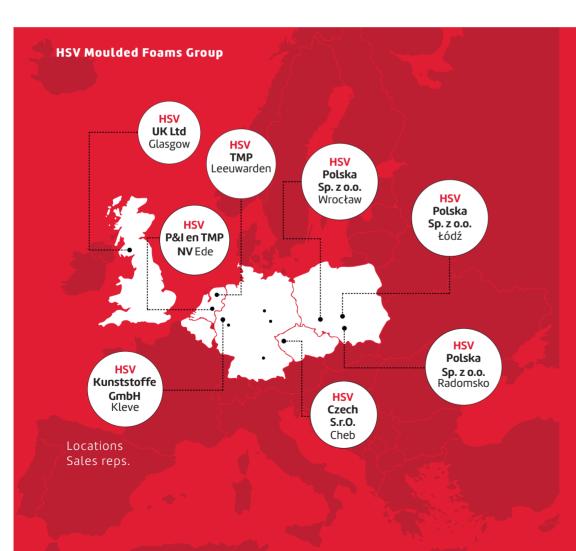




the particle foam engineers

## MANUFACTURING AND SERVICE throughout Europe

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HSV Moulded Foams Group has subsidiaries in the Netherlands, Germany, the UK, Poland, and the Czech Republic. For over 45 years, we have set the standard in particle foam processing. We manufacture moulded products from EPS, EPP and EPE, amongst others.

Color:

Department:

the particl

Numerous multinationals and middle-sized companies use HSV solutions to optimise their manufacturing and supply chain processes.

HSV solutions contribute to sustainable living. We manufacture and process particle foams efficiently, while particle foam products have a long lifespan and can be fully recycled. Cooperation with HSV maximises your resources' potential.

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HSV Patkaging & Insulation NV

Customer:

Product:

Art. Nr. Customer

Drawing

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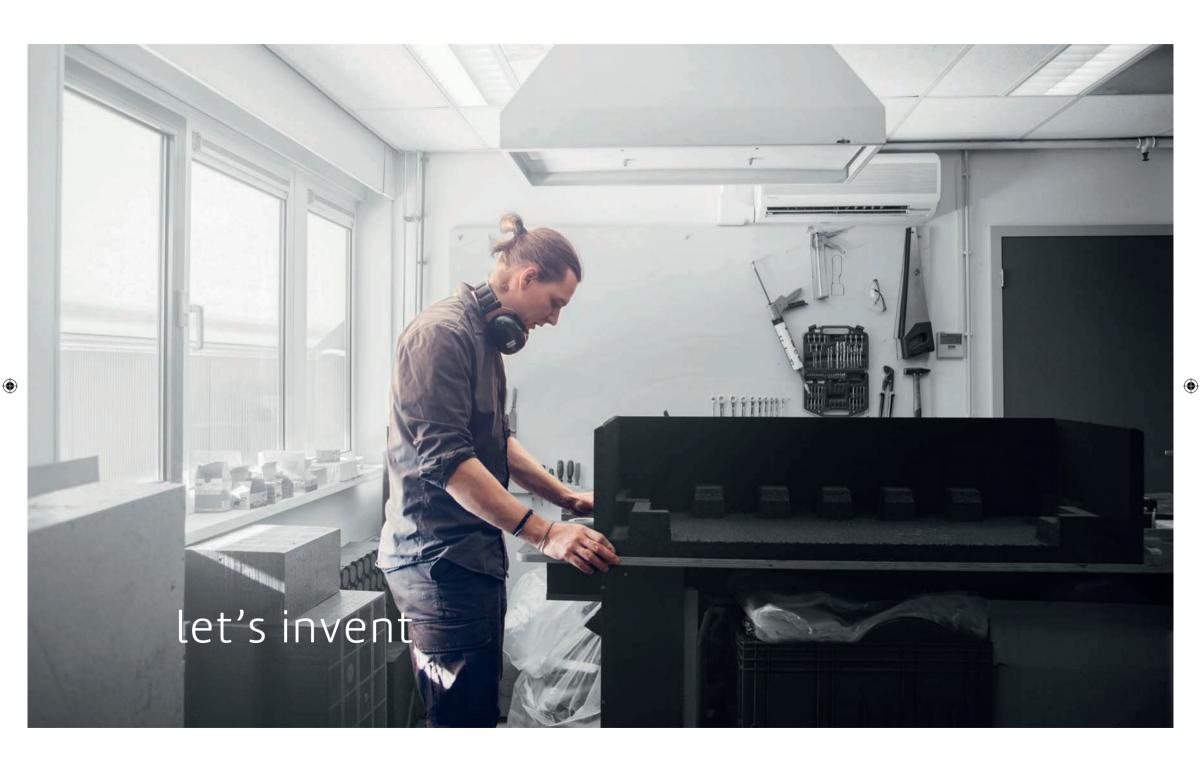
Request.

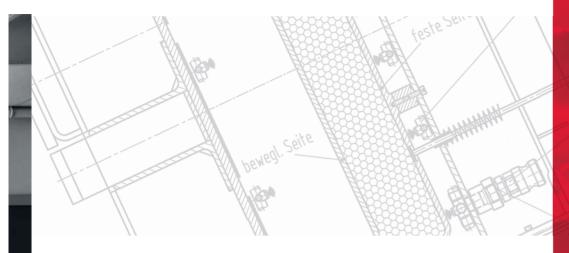
Volume:

angle projection

Format









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We know you are looking for tailor-made solutions. Thus, we only manufacture your solution once thoroughly tested.

Translating particle foam characteristics into applications that never before existed requires a lot of creativity and inventive skills. Fortunately, HSV's designers and developers have been selected on the basis of these two core competences, and their ability to forge partnerships: developing tailor-made solutions in co-creation with you, our client.

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**BRILLIANT** 

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solutions

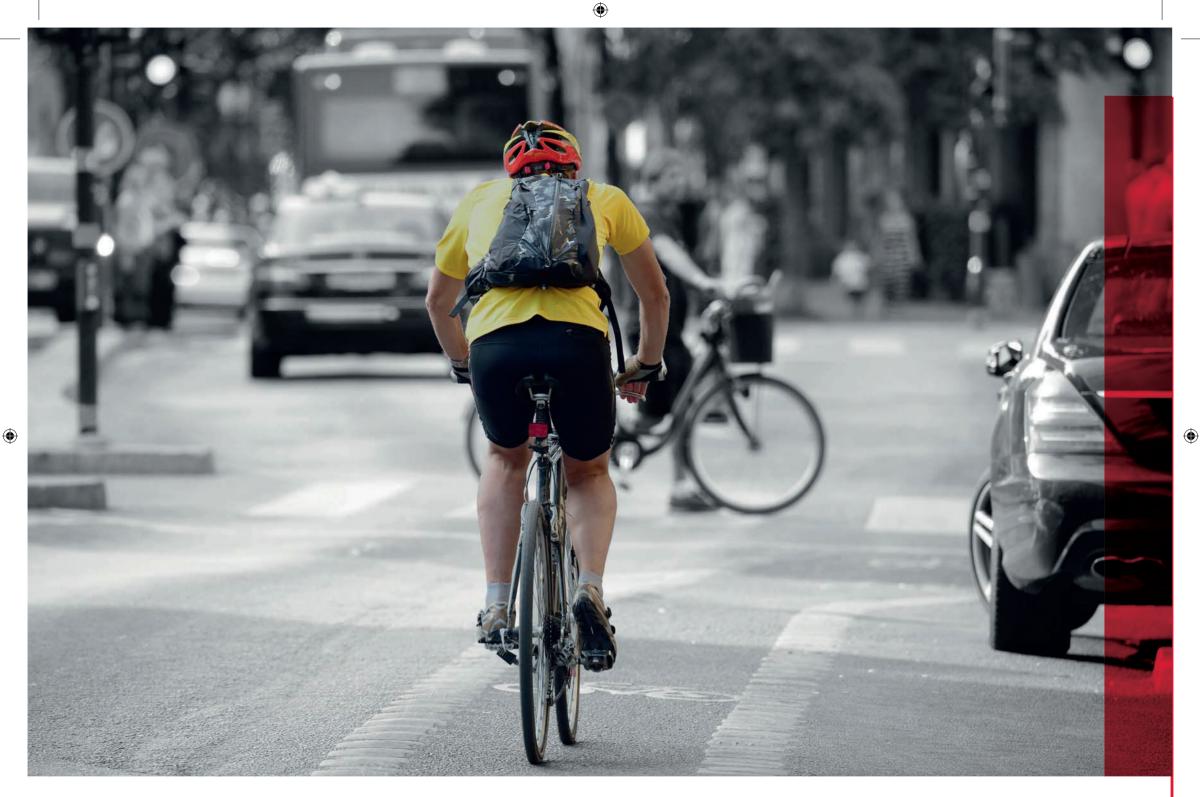
# the hidden invention.

The installation of climate systems in buildings is well-served by the constructive characteristics and excellent thermal insulation of particle foams. But how to build a fully fledged air conditioning unit with the help of EPS, EPP and casings? This question was posed by a well known German manufacturer of built-in air conditioning systems. In close cooperation with the client and HSV Technical Moulded Parts, our engineers succeeded in this: the unit does not only provide adequate insulation, but also makes a lightweight ceiling component.

Our solution: "in-mould" processing of plastic injection moulded parts in the particle foam component. The result: a client that spearheads the market, and provides a tangible contribution to energy-efficient and comfortable buildings. Thanks to the combined and inventive approach of HSV.

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#### innovation on the road

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## FROM THERMAL INSULATING BOX to car bumper

Their insulating capacity make particle foams an excellent choice for insulating products in the catering business. As is the case with HSV's EPP-based thermobox. A solution that delivers, either on site or on the road. Thanks to the resilient features and shock absorption of EPP. Speaking of traffic: what about car bumpers absorbing loads of energy due to EPP? A particle foam application that keeps the crossing pedestrian in mind.

#### Heating and cooling

A lightweight, robust, and insulating catering success based on EPP. Caterers maintain product temperatures with this thermo-box.

#### Safeguarding and protection

EPP applications in cars, such as doorpanels and bumpers, absorb the energy in case of a crash.

### Protection and preservation

Particle foams create underlayment resilience. EPP extends the lifespan of the underlayments.

#### Sports and movement

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Safety in sports with the help of particle foams. Beauty and safety come together in a helmet design. Thanks to EPP's freedom in design and HSV's creativity.

## FROM UNDERLAYMENT TO SPORTS HELMETS

Wherever people or objects need to be resistant you will find particle foams. In the world of sports, for example. From helmets to the underlayment of synthetic turf. Why? Because particle foams are excellent energy absorbers. EPP outperforms EPS in case of "multiple impacts." As with a skater hitting the ground. Sportsmen and -women make demands on the looks of their "body protection". Luckily for them EPP features a lot of freedom in design and comes in many colours. Let's not downplay the looks.

## **QUICK** manufacturing



#### innovation in recreation

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#### innovation at home

## to designer component

Modern, well-insulated residences with a comfortable and energy-efficient interior climate contain numerous particle foam applications. Are you looking for a material that can be easily incorporated in bushings, lowered ceilings, cavity walls, and casings for installations and machinery? Think particle foams: a lightweight and flexibly applicable material thanks to considerable freedom in design. Yet particle foams mostly revolve around their insulating capacity as seen with the interior upholstery of a boiler. Or floor heating wooing you to sit down.

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#### Insulation and protection

EPP-based interior upholstery insulates a boiler while providing grip for its wiring and pipes

#### Creation and design

Contemporary design and efficient use of commodities thanks to EPP. As shown by this designer component.

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#### **Cooling and insulation**

Cooling spaces demand a lot of energy. Throughout the installation, optimised insulation of every component is a must-have.

### Safety and transportation

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An EPP-based transportation tray that ensures efficient and undamaged delivery to the client.

## **FROM COOLING UNIT** to transportation tray

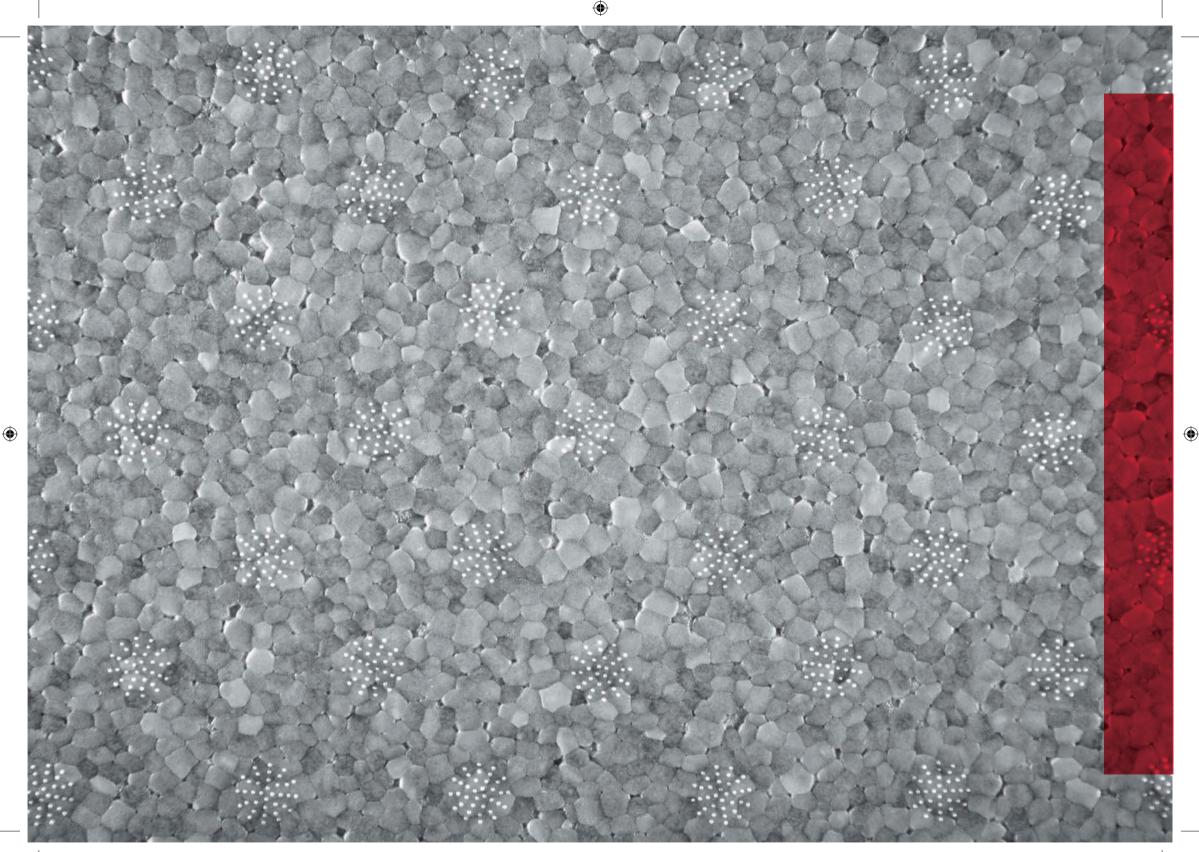
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Safety, reliability, and efficiency are crucial success factors of a company's supply chain. HSV helps manufacturers deliver intermediate goods and final products in efficient packaging, "just in time," and in excellent shape. Thanks to solid shock absorption and the lightweight and resilient features of EPP. We develop EPP-based transportation trays for manufacturers in the automotive sector, for example. In their entire supply chain, these manufacturers rely on HSV's logistic solutions. Our tailor-made solutions contribute to your operational excellence.

SINGULAR Uitwerper 22mm(1x) taitor - Muaklok Recycledge Recycledge Artikelnummer



#### innovation in business



## these beads will change your business

Imagine a world in which you can protect, insulate, pack and ship your products sustainably – regardless of circumstances. Or a world in which you can make a significant contribution to a safe and energy-efficient society, with just simple yet genius solutions. It's possible – thanks to materials that largely consist of air. The question is not if particle foams will change your business, but when.





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