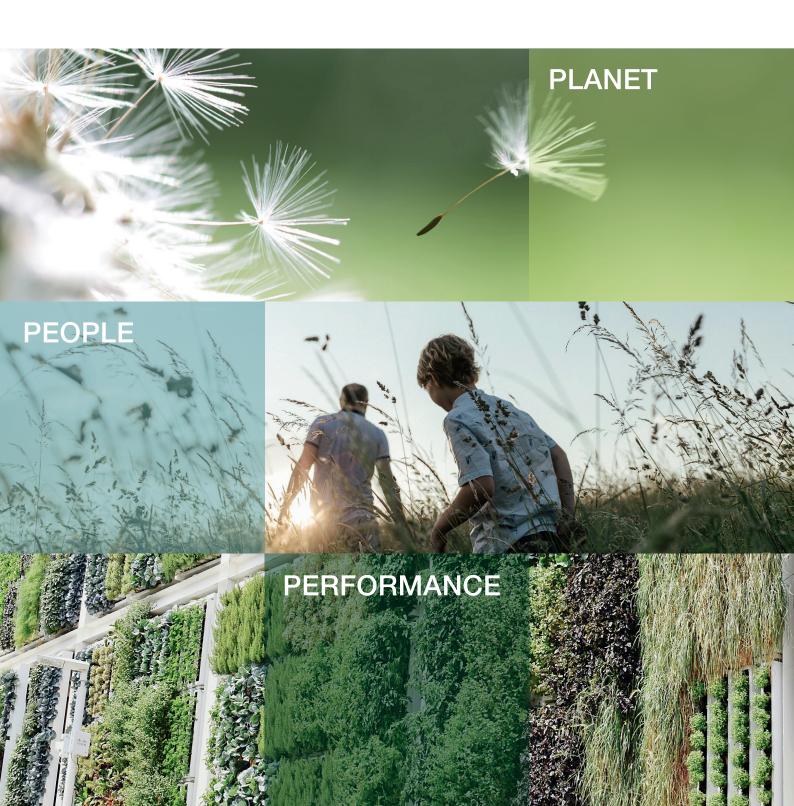


Sustainability@FoamPartner

## **Best in Foam – Sustainable Through Innovation**





## **Best in Foam – Sustainable Through Innovation**



## Thinking and Acting Responsibly for Our Future

#### The world needs our commitment

Climate change and global warming, finite resources, social injustice and social tensions bring about major changes. The protection of our environment and climate are central issues that affect us all. We are facing great challenges and new demands. The aspect of sustainability is therefore becoming more and more relevant and is increasingly determining our thoughts and actions. Therefore, we need solutions that are socially, ecologically and economically justifiable for tomorrow's world.

At FoamPartner, we take these tasks very seriously and we want to further expand our responsibility. Because we find: Anyone who wants to help shape the future must think in terms of conserving resources and act in a socially responsible manner. High performance solutions without sustainability and genuine customer benefit are inconceivable to us.

That's why we already have a global sustainable safety, health and environment and quality policy in place at our company. We are constantly optimizing and adapting to the latest challenges in our customer oriented and certified quality management. Our self evident obligation to comply with legal regulations and our claim to conserve resources, to actively contribute to the protection of the environment and people is done with all our strengths.

Yes, we make very high demands – on ourselves and our partners. But we have already achieved a lot. As one of the leading foam manufacturers, we are already enriching the market with new ideas today, and we want to play an active role in shaping it in the future. Our sustainability principle "PLANET, PEOPLE & PERFORMANCE" shows us the way.

## PLANET, PEOPLE & PERFORMANCE Our Sustainability Principle

We think sustainably in all relevant areas – socially, ecologically and economically. We can only be successful with close cooperation of our employees, our plants and our products. That's why we use various strategies to implement our sustainability claim in all areas.



We focus on nature compatible material cycles, recycling and waste avoidance. And we pay close attention to the highest possible level of environmental protection.



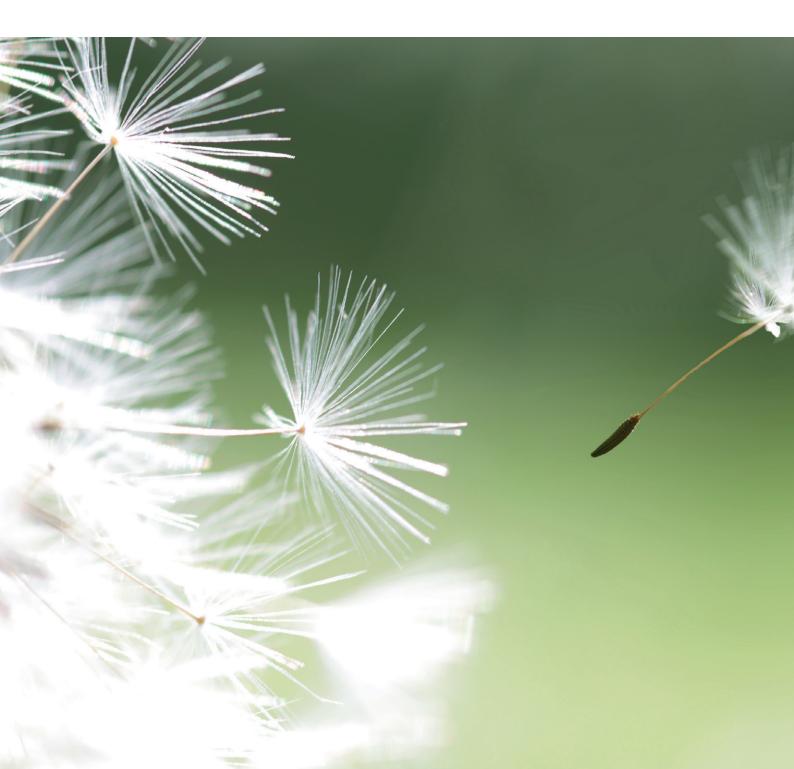
We ensure the establishment and expansion of an employee and environmentally friendly working environment and are also continuing to expand our social responsibility, both locally and globally.



We focus on the responsible handling and more efficient use of materials and energy, for sustainable solutions with added value.

In this way we create the best possible conditions for the development of sustainable, innovative and industry leading solutions for industry and trade. We want to continuously monitor and improve on them.





## PLANET Ecological Sustainability

At FoamPartner, we always focus on the best possible combination of operational efficiency and environmental protection in our work. We work in the most resource efficient way possible through efficient use of materials. We use recyclable materials and renewable resources wherever possible. We make our contribution to climate protection with energy efficient plants and emission reductions.

With our high environmental safety standards and innovative waste and recycling concepts, we have already exceeded legal and official requirements in some cases. We are continuously looking for further optimization potential even on a small scale. For example, by reducing the number of global business trips and business flights to reduce our CO<sub>2</sub> footprint.



#### **Environmental safety**

Our environment and its safety are very important to us. That is why we regularly adapt our safety standards to current requirements and circumstances. We make sure that all regulations are strictly followed, and in some cases, we are already doing far more. With the introduction of the ISO 14001 environmental management system at various locations, we are already planning the next step for even more improvements.



#### **Conservation of resources**

Conservation and protection of resources is a matter of course for us. Sustainable planning and sustainable use of raw materials is a priority for us: with special Business Excellence projects for yield optimization and material efficiency. With well thought out concepts for waste management and recycling. And with special product solutions based on renewable and CO<sub>2</sub> based polyols.



#### Climate protection

Climate protection and energy efficiency go hand in hand at FoamPartner. Here, we focus primarily on reducing  $\mathrm{CO}_2$  emissions, with the implementation of ISO 50001 at selected locations. By participating in emissions trading with  $\mathrm{CO}_2$  certificates and general savings measures such as new mobility concepts and travel guidelines, we make every step count.



#### Safety first - also when it comes to the environment

Environmental safety plays a particularly important role for chemical companies. This is the same at FoamPartner. Our environmental safety standards include comprehensive alarms, hazard prevention plans and effective emergency plans. In this way, we are prepared for the worst case scenario.

To keep the probability of occurrence and extent of damage from incidents as low as possible and to protect the neighborhood, we rely on:

- Compliance with the highest safety standards of the chemical industry.
- Regular environmental inspections of the sites by authorities and institutions.
- Preventive environmental protection through modern facilities that are constantly adapted to the latest state of the art.
- Continuous emission measurements in the plants.
- Measuring points to determine the groundwater status on the company premises.
- Cleaning of exhaust gases and avoidance/reduction of waste through internal optimization.
- A recognized plant fire brigade directly on site at our largest location in Duderstadt for rapid intervention and danger prevention.
- Dedicated incident and emission control officers.

We also reduce global travel and business flights as much as possible in order to make our contribution to reducing emissions and improving our ecological footprint.

#### Energy efficiency - our energy management

In the effort to achieve sustainability, the area of energy and its savings plays a special role at FoamPartner. We want to conserve resources, reduce emissions and continually decrease the consumption of raw materials, heat and energy. We use various measures to achieve this:

- Introduction of ISO 50001 certification at the Delmenhorst and Leverkusen sites and regular external energy audits at other sites.
- Use of combined heat and power plants based on renewable energies such as biomass or untreated wood to generate heat and energy.
- Internal promotion of vehicle guidelines such as e-cars and hybrid vehicles, including the installation of appropriate charging points on company premises.
- Key figures for monitoring and controlling energy consumption and measures to make energy use more conscious and efficient.
- Continuous conversion of the lighting systems to stateof-the-art LED technology.
- Energy efficient renovation of buildings and building services engineering with roof insulation, multiple glazing, ventilation systems with heat recovery and frequency converters for speed regulation and increased efficiency.





#### Fit for the energy audit – the example of Delmenhorst

Our Delmenhorst site was certified according to ISO 50001 in 2016 in close cooperation with the German Federal Office of Energy (Bundesamt für Energie/BFE) and energy saving consultants. To measure machine consumption, a measuring point concept was set up in 2019 to record the energy consumption of each individual machine at any time. The knowledge gained shows enormous energy saving potential:

- The highest energy consumption occurs in the exhaust air system with a savings potential of 800,000 kWh.
- Lighting with fluorescent tubes also consumes a lot of energy the savings potential here is 360,000 kWh.

In 2019, the ceiling lighting in the entire factory area (15,000 m²) was replaced in cooperation with "Deutsche Lichtmiete Vermietgesellschaft mbH", a German service company for rental of lighting systems. In 2020, we now want to reduce energy consumption at the plant by 10 % compared to the previous year. We want to achieve this goal, among other things, by renewing the exhaust air system for the embossing shop. The demand based control of the ventilation system reduces the electricity requirement of the fans and the gas requirement for preheating the supply air. A further measure to save energy is the systematic and continuous reduction of compressed air leakages.









#### Waste and recycling concepts

Waste management and recycling are of particular importance to FoamPartner, especially with regard to sustainability aspects. We always have different forms of energy, the environment, and resources in mind. And we act accordingly:

- We avoid waste before it is produced in order to conserve resources. For example, through demand oriented production with optimized material yield.
- 2. We use foams repeatedly if possible. For example, through the targeted further processing of residual blocks and larger cutting residues.
- We use materials that can be recycled or reconditioned, for example to recycled polyols or ground PUR powder.
- We separate waste and recycle small cutting residues in accordance with the corresponding value streams.
   For example, to produce composite foams.
- 5. We ensure energy recovery before disposal. For example, through the thermal recycling of used mattresses.

#### Principles of the waste hierarchy

Waste avoidance
Re-using materials
Recycling & reprocessing
materials
Other recovery
Waste disposal





#### Less is more - material efficient working

Our plant in Wolfhausen, like all our sites, operates according to the motto: No overproduction! Production and delivery are always adapted to customer requirements and order situations. Since 2017 we have established a special waste management system here.

Residual blocks are processed in a targeted manner, unused blocks are collected and stored. With every new customer order, the existing residual blocks are checked for use and, if appropriate, processed.

The tops, which used to be simply disposed of, are now partly processed further into rolls which are used as technical foam, for example in packaging. Dome remains and edges are separated, sorted by foam type and reused as composite foam.

This procedure enables targeted processing while at the same time making efficient use of the material. It reduced waste at the Wolfhausen site by 6 % in just one year and we want to achieve even more. Our current Business Excellence project "Big Move" to increase earnings, includes many new approaches and ideas for waste avoidance, and the team is working hard to implement them.

#### Advanced recycling initiatives

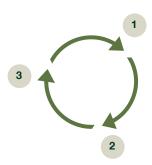
The chemical recycling of foams to obtain polyol has been known in the technical literature for several years. The topic has gained interest, especially in recent times, and we assume that the economic breakthrough here will not be long in coming. We are prepared for this: In various tests we have combined recycled and fresh polyol for new mattress foams. Our results show that up to 20 % of the recycled polyol could be reused in a new foam.

Recycled, ground PUR powder can be used as filler for new foams. A proportion of  $10-15\,\%$  has no effect on the properties of new foams. FoamPartner already uses this method in the production of a household sponge.

#### Resources of the future

Sustainable raw materials are another topic that we deal with intensively. We are constantly looking for new ways to use polyols on a renewable basis in our foams. Their use in production is not a problem. However, we exclude some raw materials due to ethical concerns, such as palm oil based polyols. Currently, we use polyols based on  $\mathrm{CO}_2$ , cashew nutshell, castor, rapeseed and sunflower oil for applications in the Mobility and Specialties segments. In principle, such polyols can be used in a concentration of up to 100 %, depending on the area of application. The sustainable proportion in the finished foam is then a maximum of 60 %. We are working on various projects to continuously increase the use of sustainable raw materials.

#### Chemical recycling



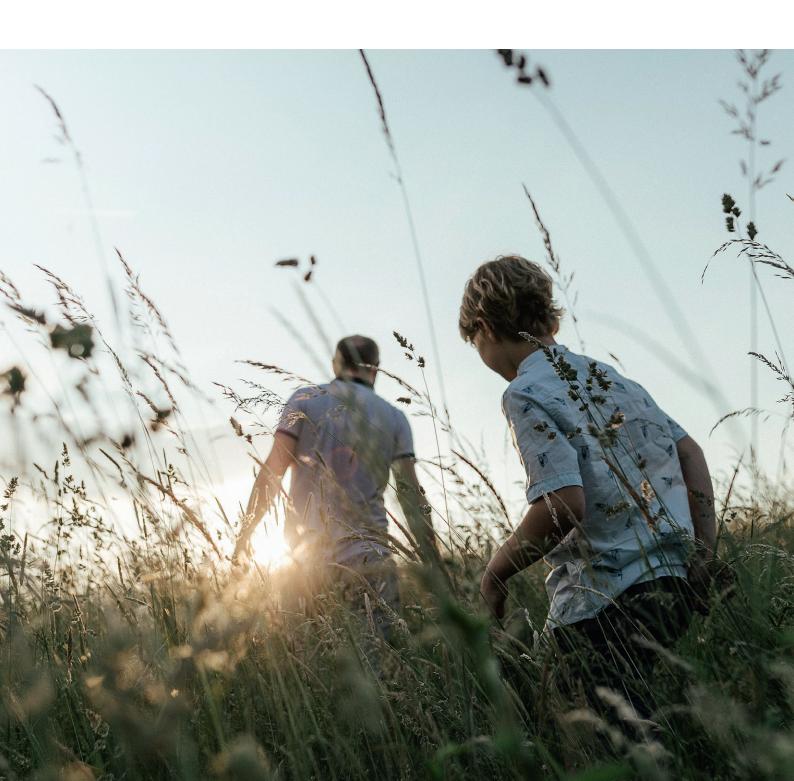
- PUR foams are produced in the foaming plant. The raw materials used are mainly polyols and reactive isocyanates. The polyol component can consist of 1 part recycled sources and 4 parts "virgin" sources.
- 2. The foam blocks are further processed e.g. to mattresses. Cutting residues occur during conversion. Foam residues can be processed. They are either processed as composite foam or sent for chemical recycling.
- 3. The process for the chemical recycling of PUR foams is called acidolysis. To obtain recycled polyol, the same percentage of foam residues and "virgin" polyol is used.











## PEOPLE Social Sustainability

For FoamPartner, people are the greatest asset. We value our employees, our business partners, and our social environment. They are all valuable to our company. Because we know that without them, we cannot do business. That's why we ensure the highest safety standards and a variety of measures to promote health. We also ensure compliance with all laws and corporate guide-

lines, and we always act responsibly in accordance with our values set out in our Code of Conduct – respect, reliability and integrity. But we also see our social responsibility as a local and global task and obligation. Locally, we support various associations and institutions directly at our locations. Internationally, we support various UNICEF sustainability initiatives in developing countries.



#### Integrity in business life

Our ethics and values are highly regarded and are firmly anchored at FoamPartner. They are integrated in all business areas, internally and externally. They shape our work and our behavior in our dealings with each other as well as with business partners, suppliers, and customers. We pay close attention to this every day and at all times.



#### Wellbeing & employee satisfaction

For us, the most basic requirements for working at FoamPartner include safety at work and the health of our employees. "OneFoampartner – a strong community" is our motto for creating a modern corporate culture at all of our 13 sites world wide. The more pleasant the working environment and career prospects, the more satisfied and productive are our employees.



#### Social commitment

For FoamPartner, social responsibility is not just an empty phrase, but an every-day reality. For us, social commitment is not an obligation, but a commitment with heart and mind, on a small and large scale and in neighborhood projects as well as in development aid.



#### Health and safety

are our top priority. We as a company, bear a high responsibility for employees and locations, not only in the context of hazardous incident situations.





**Safety in the workplace** is one of our central themes. Occupational safety specialists monitor compliance with global regulations and laws on site. Regular monitoring and inspections enable us to take rapid action and implement appropriate safety measures if necessary.

FoamPartner ensures the following activities and measures at all its facilities:

- Continuous improvements and investments, especially of workplaces dealing with hazardous substances.
- Special occupational safety checks by authorities and institutions at the foaming plants in Leverkusen, Duderstadt, Wolfhausen and Changzhou.
- Compliance with the highest safety standards of the chemical industry.
- Investment in occupational safety technology in plant and machinery.

- Special bonus for in house suggestions on occupational safety.
- Regular meetings of the occupational safety committee.
- Regular inspection of the production and administrative areas in accordance with the German Occupational Safety Act.
- Voluntary participation in the "Study on occupational health and safety in activities with materials containing diisocyanates" of the IPA/DGUV.
- Comprehensive fire protection measures, e.g. also the operation of a recognized plant fire brigade at our largest site in Duderstadt.

**Promoting the health of our employees** is also very important to us. Our initiatives in this area are:

- Health days and training for employees and managers
- Company doctors, health checks, flu vaccinations and other measures.
- Return talks and integration programs for returning to work after a long illness.
- Close cooperation with safety officers.
- Financial support towards fitness center participation.
- Regular fruit baskets from regional farmers for employees.





#### Employee development, team building and diversity

We support and promote the professional and personal development of our employees because their knowledge is worth a lot to us. In our Talent Development Program, we offer individual training programs for managers, department heads, team leaders and shift leaders.

We give young people a first insight into the world of work at the Girls & Boys Day or the National Future Day. In house training is just as possible with us as dual studies. We also welcome newly arrived applicants. With a newly established program, we now also support unskilled employees in their part time vocational

training. By teambuilding we do not only mean Christmas parties, Oktoberfest or similar events, but also other events in a more personal setting, such as joint sports or cooking events.

#### More environmentally friendly working environment

We think sustainably and progressively and offer our employees company e-cars, hybrid vehicles and business e-bikes for more environmentally friendly mobility. We are gradually switching to paperless processes to conserve resources, avoiding plastic by using water dispensers, dispensing water bottles and porcelain cups at all coffee machines at our sites.





#### **Our Code of Conduct**

One of the foundations of our success is the values lived by the FoamPartner Group:

- Respect
- Reliability
- Integrity

They determine the way we deal with each other within the company. Just like our actions and relationships with customers, suppliers and other business partners. All of our employees are committed to developing and maintaining their skills accordingly. To this end, we hold regular internal business ethics training courses on the Code of Conduct and many other topics.





#### **Corporate Social Responsibility**

We take our social responsibility as a company very seriously. We are involved in a wide variety of areas, internationally as well as regionally, sustainability knows no boundaries.

**Sustainably international – our commitment to UNICEF**We currently support the following projects:

### Living Schools for a sustainable use of natural resources in Malawi

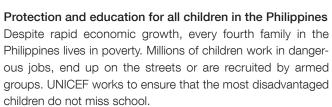
"Living Schools" are no ordinary schools. Here, people live what is still a dream of the future in many places: environmental awareness, e-learning, co-determination. In Malawi they offer girls and boys a good education with future prospects. And they handle natural resources efficiently and carefully in one of the poorest countries in the world.



#### Clean water for schools in Bolivia

In El Alto, the highest city in the world, many schools lack clean water and toilets. This encourages diarrhea and other infectious diseases and thus keeps children away from school. UNICEF ensures that clean drinking water and toilets are provided and hygiene rules are observed. Both families and the entire community benefit from these improvements.





# Sustainably regional – commitment at our site communities We also support smaller and larger projects in the field of sports, art and education on a local level at our sites. We support match ball donations and other donations in kind as well as training offers. We also sponsor art exhibitions. We are committed to the road safety education of children and are involved in other educational areas.









## PERFORMANCE Economic Sustainability

FoamPartner develops innovative products for sustainable applications in the fields of mobility, industry, and comfort. We combine environmentally friendly product properties with improved application options in terms of functionality and performance. The results vary greatly depending on the area of application – foams that have particularly low emissions, that are based on low pollutant or renewable raw materials, or that are highly durable or

more efficient despite their low weight. This provides long term added value for all stakeholders which is very important to us. It is also important to us to develop only high quality products with sustainable and economic value for our portfolio which are perfectly tailored to the respective market. This is our answer to social, regulatory and ecological needs.



#### Holistic approach

FoamPartner pays special attention to sustainability throughout the entire product life cycle from the use of raw materials to foam production and conversion, to product application and finally to disposal. In the various phases of a product life cycle, very different aspects of sustainability can become relevant. We therefore consider a wide range of options in the development of sustainable product solutions and are always looking for further optimization potential.



#### Responsible value chains

Responsible handling of material and environmental resources along the value chain is a matter of course at FoamPartner. We pay close attention to the procurement of appropriate raw materials, the selection of suitable suppliers and work in close cooperation with strategic partners and associations. Our focus here is also sustainable in every respect. It is important to us that our partners share the same values with us. We ensure this with our code of conduct for suppliers.



#### Solutions with added value

Solutions from FoamPartner are value adding and innovative with great application potential in many areas. Health and wellbeing, climate protection, e-mobility, resource conservation, digitization, and more are a part of sustainability in all areas of life, today and tomorrow.



#### Sustainability throughout the product life cycle

A responsible use of resources and environmental protection throughout the entire life cycle of our products is very important to us.

Therefore, we always pay close attention to:

- Sustainable alternatives and safer materials in the
- selection of raw materials and starting materials.
- Resource conserving production and health protection.
- Optimized logistics for shipments.
- Safer use and application by the customer.
- Environmental compatibility also for re- or upcycling.

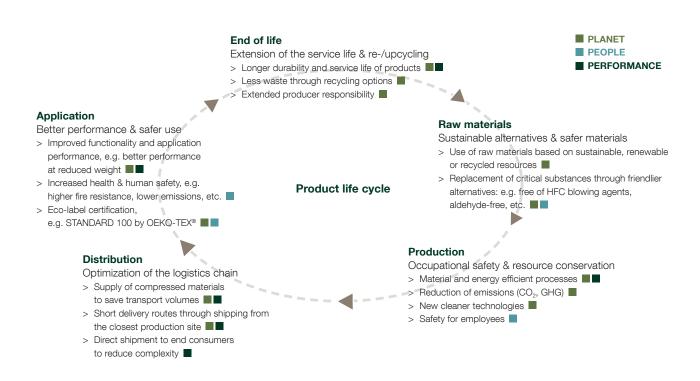
For us, this applies to every product, at any time, at any of our locations and in all our business segments – Mobility, Specialties and Living & Care. By conviction.



#### Mobility - focus on sustainable innovations

Topics such as health, safety, climate protection, resource conservation and material efficiency are a focus of attention in the automotive sector. Our

focus is the improvement of air quality in the vehicle interior using lower emission components to safety standards in the area of fire and flame protection and the reduction of  $\rm CO_2$  emissions and greenhouse gases. The field of electromobility in particular is playing an increasingly important role. There is a demand for lighter components with greater functionality and improved performance at lower weight. Here, FoamPartner is working on sustainable, environmentally friendly, and resource saving products and developing innovative solutions.



## Acoustically and thermally effective components for the mobility of tomorrow

Components for electric vehicles place new demands on automotive suppliers. Although electric vehicles need fewer parts, they must be produced efficiently and sustainably, ideally with multifunctional properties in the smallest possible space. Our specialists meet these challenges and develop innovative solutions for the mobility sector based on our RegiSeal® product family.

#### Less complexity due to new 2-in-1 component

RegiSeal® Acoustic SMS is a new spring-mass system which combines efficient acoustic and vibration solutions in a single lightweight component. It is used wherever structure borne and airborne noise have to be reduced. For example, in the dash inner encapsulation or in the gear shifter housing. The advantages are:

- Sustainable product profile resource conservation thanks to improved material efficiency and health benefits due to very low emission levels and low odor.
- Less complexity finished part with hybrid structure and multifunctional properties on the basis of a single material.
- Lightweight solution 50 % lighter than a conventional spring-mass system by switching from a heavy foil layer to an integrated, light weight flexible foam layer.
- Cost attractive alternative meets acoustic requirements while reducing costs compared to standard spring-mass systems.
- OEM proven performance profile tested in our own test center; the product has reached the production stage at well known OEMs.

#### Mileage range increase of electric cars

RegiSeal® e-Thermo is a new thermally effective component, which was specially developed for e-mobility. With convincing results:

- Mileage range increase increases the range by up to 5 % through improved insulation, thus less battery consumption\*.
- **Lightweight solution** 50 % lighter than original car parts.
- Benchmark test the improved thermal performance was determined in a benchmark study; the theoretical results are now evaluated in a practical test under real conditions.

\*(based on theoretical simulations for an A-class car with a range of 230 km.)



#### Practical test:

In a BMW i3, various car components were installed in the interior, laminated with our innovative PUR foams and special textiles from Strähle & Hess. The acoustic and thermal performances were evaluated in practical tests under real road conditions. Initial measurements at a standstill show that the FoamPartner BMW i3 has up to 5 % more charging capacity after 4 hours than the comparable BMW i3 with standard equipment.

#### **PERFORMANCE**



## Polyurethane systems – individual solutions for sustainable applications

Whether for acoustic elements, design covers or engine encapsulations – our innovative PUR systems are already being used in environmental friendly electric cars and vehicles with fuel cells. No wonder, since many of our systems meet the highest fire protection regulations and requirements of authorities and OEMs, such as EN45545, UL 94-V0 or the long-term flammability test over 5-10 min according to PV3357.

### For more climate protection – our water-based PUR systems

By 2023, fluorocarbons in polyurethane applications will completely disappear from the European market, as they influence the climate, damage the earth's atmosphere and contribute to global warming. Against this background, FoamPartner has developed environmentally friendly water blown foam systems without fluorocarbons. One example are integral foam systems from our OBoSonic® product group. These have been specially designed for acoustic applications and have impressive absorption properties.

The innovative integral foam system OBoSonic® B 140 is used for injector and rail encapsulation as well as for design engine covers. In addition to outstanding acoustic absorption properties, the system offers the ideal combination of weight savings, design surface, functionality and high material and temperature resistance.

#### Made from renewable raw materials - our PUR systems

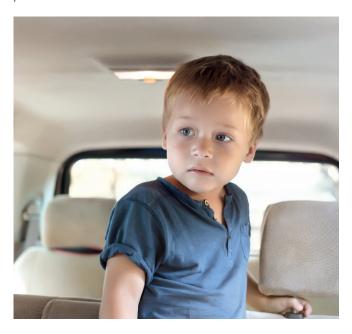
With our environmentally friendly integral and flexible foam systems, up to 30 % of the polyol content can be replaced by special renewable raw materials that are not in conflict with the food value chain. We can offer such PUR systems for a variety of applications. For example, highly elastic ComfoPUR® flexible comfort foam systems for seats in the automotive, rail or aviation sector.





## Sustainable appearance – our foam rolls for automotive interior applications

As a partner of the automotive industry, we develop foams for components in vehicle interiors that are characterized by optimized and low emission production. Their surface appearance and haptics with soft touch feeling are convincing and are used for headliners, vehicle seats and air conditioned seats, door panels and armrests.



### Healthier air climate in the vehicle – the OBoSky® product family

With OBoSky® we have created a new foam technology that combines the advantages of ester based polyurethane foams with the properties of ether based materials. The result is hydrolysis stable, low emission and low odor foams with an extremely homogeneous cell structure that can be processed optimally. They are characterized by significantly lower values for volatile organic compounds (VOC) and fogging (FOG).

In the VOC and FOG tests according to VDA 278 and VDA 270 OBoSky® products are well below the limit values of the strict Daimler specifications for flexible PUR foams. The homogeneous cell structure enables surfaces with optimal processing properties, also for textiles with low weight. Flame and adhesive laminations are possible without a problem.

The OBoSky® family comprises six products with a density range of 29 to 42 kg/m³.

OBoSky® proves how comprehensively we understand our sustainability approach and how we implement it in all areas:

- PLANET We improve material efficiency: thanks to prolonged durability and resource conservation through 50 % fewer adhesive seams.
- **PEOPLE** We create a healthier climate in the vehicle interior: by reducing emissions and odors.
- PERFORMANCE We save costs through efficient production: with optimized processing and functionality in line with the high performance requirements of the automotive industry.

#### **PERFORMANCE**



## From sustainable raw materials – the OBoNature™ product family

Our OBoNature™ products for vehicle interiors are convincing in all areas. After all, here too, we act responsibly and sustainably, from production to processing, in a material efficient and resource saving manner. The results are low emission and low odor, flame retardant and easy to process perfectly tailored to their respective areas of application, and all based on renewable raw materials.

#### OBosky® Nature 3540 T for headliners

The particularly fine pored foam meets the highest requirements. The optimized elongation at break and tensile strength makes it extremely elastic and allows good thermo-formability in critical radii. Its homogeneous cell structure and color ensures an optimum surface structure and appearance without an undesirable "orange peel" effect.





#### OBoTrim™ Nature 3540 T for vehicle interiors

This foam has fewer fine pores and is particularly suitable for armrests and door panels. It provides good processing properties, good elongation at break and tensile strength as well as increased recovery properties after thermo-compression.

#### OboSeat® Nature 3540 T for seat applications

This foam can be easily processed with good sewing characteristics and high seating comfort even with smaller pore size without effecting elongation at break and tensile strength.



The OBoNature™ product family is further proof of the successful implementation of our sustainability approach in all areas:

- PLANET We use sustainable raw materials in production based on 20 % less crude oil. This leads to a sustainable share in the foam of > 13 %. We pay close attention to responsible production with 50 % fewer adhesive seams and reduced material usage. The foam provides stable hydrolysis and durability.
- PEOPLE We only use low emission materials for a healthier indoor climate. All flame retardant according to FMVSS 302.
- **PERFORMANCE** We save costs through efficient production and we ensure good lamination behavior even at fast lamination processes.

#### Lightweight materials for electric and hybrid vehicles

For many areas in vehicle interiors, FoamPartner now offers more and more foams with lower density and in thinner layers. This reduces manufacturing costs and extends battery life and improves driving range. We also take into account the increased demands on materials with regard to their functionality and properties along with low emission and low odor solutions that are characterized by improved durability and optimized for faster processing options.







#### **PERFORMANCE**



## Specialties for technical applications – sustainably efficient

As a leading manufacturer and converter of bestin-class foam solutions, we offer our customers a

wide range of more than 200 specialty foams and tailor made solutions for the most diverse applications. Sustainable, resource saving and environmentally friendly – for white goods, agriculture, construction and household applications.

#### For quiet whites - our acoustic solutions for white goods

For manufacturers of household appliances and white goods we supply converted parts of flake composite foams for noise reduction. Such products are particularly environmentally friendly and resource saving foams based on recycled flexible PUR foam residues. These cost effective materials reduce noise flow and structure borne sound.

Under the name RegiSeal® 40 and RegiSeal® 50 we also offer polyester based sealing foams based on renewable raw materials, which are extracted from rapeseed and sunflowers. The sustainable share in the foam is almost 60 %. This is impressive and sets a clear signal in terms of environmental protection. These products are used in white goods as well as in industrial machinery and equipment.







## Energy saving aids around the house – our sealing solutions

FoamPartner has developed many helpful foams to save heat and energy in and around the house, to reduce  $\mathrm{CO}_2$  emissions. Thanks to their airtight, heat insulating, and sound absorbing properties, they can be used in many different ways. Flame protection can also be integrated. This is the ideal basis for sealing solutions for building and living.

Joint sealing tapes or compression tapes for doors and windows made of polyether based PUR foams such as B 2320 or HyPore 30 FR are characterized by high UV light, moisture and heat resistance. They are weatherproof and resistant to heavy rain. Our PUR products are impregnated by a soaking process in a silicone based solution, which results in permanent insulation, even for years.

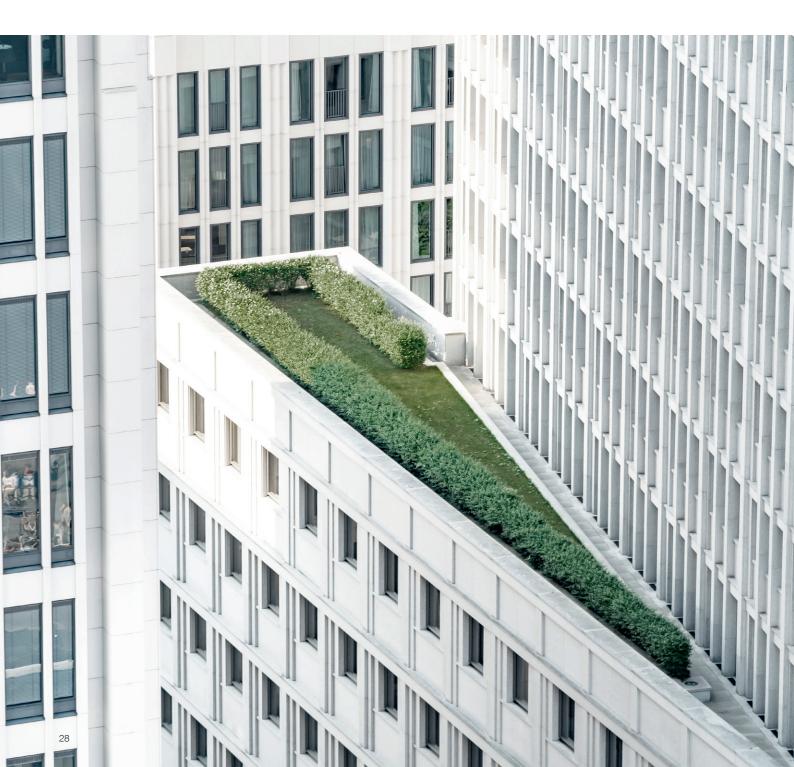




## RegiSeal® sealing solutions for heat pumps and condensing boilers

Climate friendly heating and heating alternatives effectively reduce  $CO_2$  emissions. Replacing old systems with modern condensing boilers or heat pumps reduces pollutant emissions and helps to save energy. Especially for such complex systems, we have developed our low emission sealing foams, RegiSeal® Aqua and RegiSeal® TN 30 FR. They protect the devices against unintentional penetration or escape of moisture by water, oil or other liquids as well as gases and fine particles. All RegiSeal® sealing solutions are air and water tight, easily compressible and particularly durable.





#### Green roofs for a better urban climate

Green roofs and façade greening can reduce the high heat build up in cities, especially in summer, and thus have a positive influence on air temperature and humidity. This also benefits the local climate and rainwater management.

Especially for green roofs, we have developed HyPore Roof, a special foam solution for use in water storage mats. The 5 cm thick storage medium for rainwater is combined with a 1 cm thick filter layer of TCL 40100. This prevents waterlogging and allows excess water to drain away. The water storage mats for green roofs are marketed by our Swiss partner Urs Sutter under the name VIRIdiVITA.





#### Protecting bogs – through new foam based hydroponics

Peatlands cover only 3 % of the earth's surface, but store almost a third of the world's carbon in the soil and about half of the carbon dioxide from the air. They are therefore indispensable for protection against global warming. In order to reduce peat decomposition and thus protect the peatlands, alternatives are needed, especially for use in greenhouses or the greenhouse cultivation of vegetables.

FoamPartner has created a special foam product for this important area. The substrate RegiLen 3028 APS is used as a sustainable alternative to peat and rock wool in plant cultivation. Thanks to its hydrophilic properties, it stores nutrient solutions and continuously releases them to plants and seedlings. The special cell structure of the foam ensures an intensive oxygen supply to the plant roots. Unlike rock wool, RegiLen 3028 APS is durable and resistant. Once dried out, it can easily be moistened again and thus supply water and nutrients.

#### **PERFORMANCE**



### Cleaning sponges for the environmentally conscious household

In households, consumers increasingly want to do without ingredients that are harmful to the environment. They are also paying more attention to sustainable and environmentally friendly solutions in cleaning products.

FoamPartner is also meeting this demand with eco friendly kitchen sponges in various versions. In our sponges with a recycled content of up to 70 %, we combine various sustainable materials which include PUR foam with 10 % recycled PUR powder that ensures good water absorption and wiping behavior. The non abrasive eco fleece made of 100 % recycled material guarantees scratch free surface cleaning. A middle layer of 100 % compressed and recycled PUR foam additionally gives the sponge an environmentally friendly appearance.

Another sustainable product example is the cleaning sponge Hydro S 60+. Here we have developed a particularly material efficient sponge for more hygiene and cleanliness in the household, our alternative to cellulose and viscose sponges. Its hydrophilic property ensures excellent water absorption and offers very good wiping and cleaning properties. It is similar to a cellulose sponge, but with significantly longer durability. It does not dissolve over time and can be washed in the washing machine at 60 °C / 140 °F. It prevents mold and unpleasant odors and works well without biocides or other harmful ingredients.





#### Sustainable packaging materials

In the packaging sector, we offer our customers sustainable foam materials made of polyethylene and polyurethane foams. These are intended for use in disposable and reusable packaging as well as for transport case inserts or presentation packages.







For example, we process PE foams based on renewable sugar cane and recycled ingredients from Sealed Air's EcoPure and EcoPure Hybrid product families. The latest product development from our company is the new PUR packaging foam B 2240 Eco. The raw materials used in its manufacture contain 20 % less petroleum derivatives than comparable conventional raw materials. In the finished B 2240 Eco foam, the sustainable proportion of the product is ultimately more than 12 %.

#### **PERFORMANCE**



#### Living & Care – sustainable with all comfort

There are many facets to sustainability, and we understand it to include the strengthening of health and wellbeing. As a leading manufacturer of com-

fort foams for sleeping systems, furniture and many other customer specific comfort products, we also pay close attention to sustainable production, maximum functionality and long service life in this sensitive segment.

#### Premium comfort foams with improved CO<sub>2</sub> footprint

The products of our EvoPoreHRC® and EvoPoreVHRC family are convincing all along the line:

- Conserving resources thanks to improved material efficiency and durability.
- Innovative foam technology with 30 % less material used in production for excellent support with lower density; up to 40 % more climate resistant and more durable than mattresses of comparable volume weight.
- Certified product safety according to STANDARD 100 by OEKO-TEX®, Class 1. Foam without critical dyes, preservatives and heavy metals. Suitable for use in children's articles and mattresses.
- Sustainable logistics by saving transport volumes thanks to compressed material deliveries; short transport distances for major customers due to delivery from the nearest factory; direct dispatch to end users.





#### Medical Care - Health solutions in the medical field

Especially for hospitals and nursing homes, we offer mattress cores, foams for mattresses and pillows for people in need of care. The foams are manufactured in accordance with our high sustainability standards. Mattresses with ViscoPore memory foam offer excellent pressure distribution and relief for the spine and are therefore ideal for decubitus prophylaxis. In combination with highly elastic EvoPoreHRC® or EvoPoreVHRC foams, the change of the sleeping and lying position is promoted, thus reducing the risk of bedsores. For maximum cleanliness and hygiene, ViscoPore products are washable up to 60 °C / 140 °F.

#### Smart mattresses for healthier sleep

Restful sleep is an important prerequisite for a healthy life. Our novel mattress Tecciõ.science is made of multi dynamic foams combined with innovative hardware and software. Dynamic changes of the mattress are controlled via a user friendly app to optimally manage the deep sleep and wake up phase.



#### Every end has a beginning - mattress recycling

In 2012 alone, 30 million mattresses (46,000 tonnes) and three times the volume of upholstered furniture were thrown away in the European Union. Only 40 % of this was thermally processed, the rest ended up in landfills.

We want to change that. For this reason, FoamPartner, as a member of Ebia and Europur, together with other mattress manufacturers, actively supports the working group for closed loop economy and mattress recycling. Together we are working to increase the proportion of recyclable mattresses and upholstered furniture from 40 % in 2012 to 65 % by 2035 to prevent further landfills and reduce existing ones.

### Sustainable Into the Future

The topic of sustainability is our motor and drives us forward even though we have already developed many innovative products. We have optimized production processes or have rethought them from the beginning. Today we are already acting in an environmentally friendly and resource saving manner. Nevertheless, we know that we are still at the beginning. We want to operate even more sustainably in order to create long term added value and benefit for all interest groups now and in the future.

This is why we are always planning new projects to further improve our products. With that knowledge, we always assume greater responsibility in our thoughts and actions from a social, ecological and economic point of view.

We meet this challenge with our sustainability principle **PLANET**, **PEOPLE & PERFORMANCE**. By conviction. With understanding and passion.

Every day anew.

#### Our award for sustainable products

We provide answers to social, economic and ecological needs in the areas of electromobility, climate protection, resource conservation and health and wellbeing. We have developed a special label to visually present our promise "Best in Foam - Sustainable through Innovation" in a notable way: It consists of three superimposed squares in the colors of our three sustainability areas **PLANET**, **PEOPLE & PERFORMANCE** and the in house generated word "ecovative", a combination of the terms "ecologic" and "innovative". The Ecovative label is our award for innovative Product solutions with special sustainable and economical value.







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