



NOMATEC®

*Together for success*

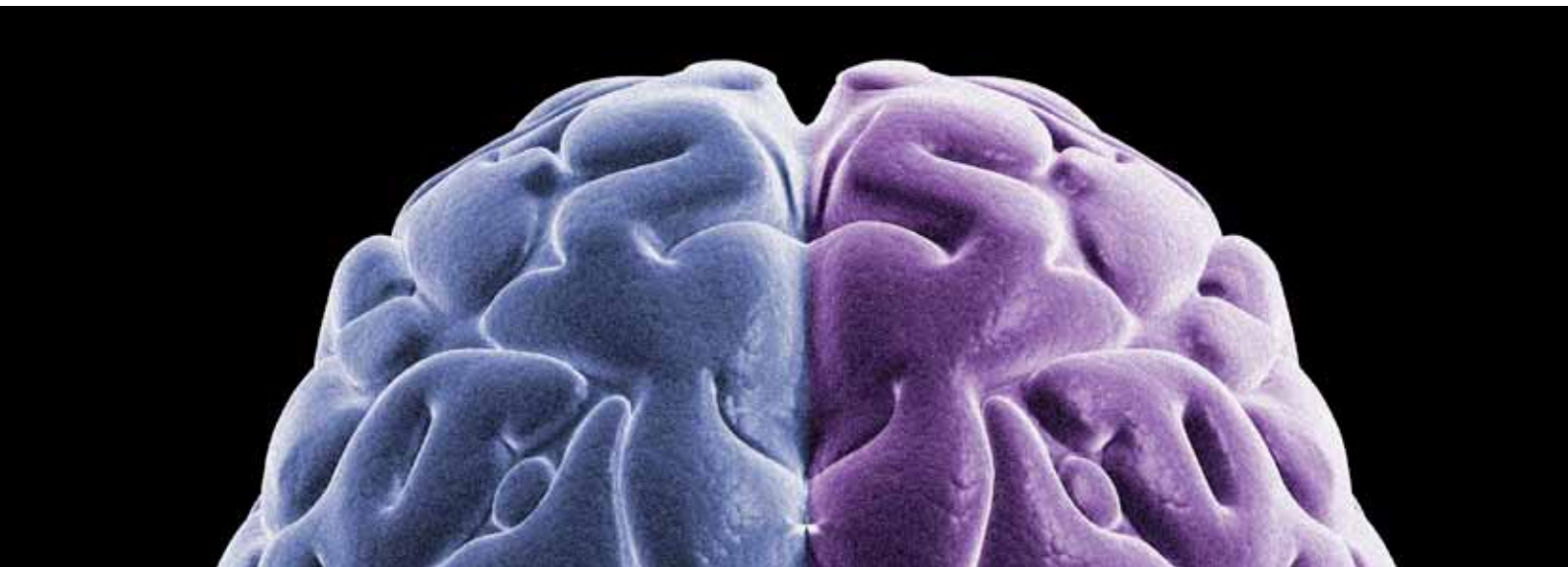


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# NMC

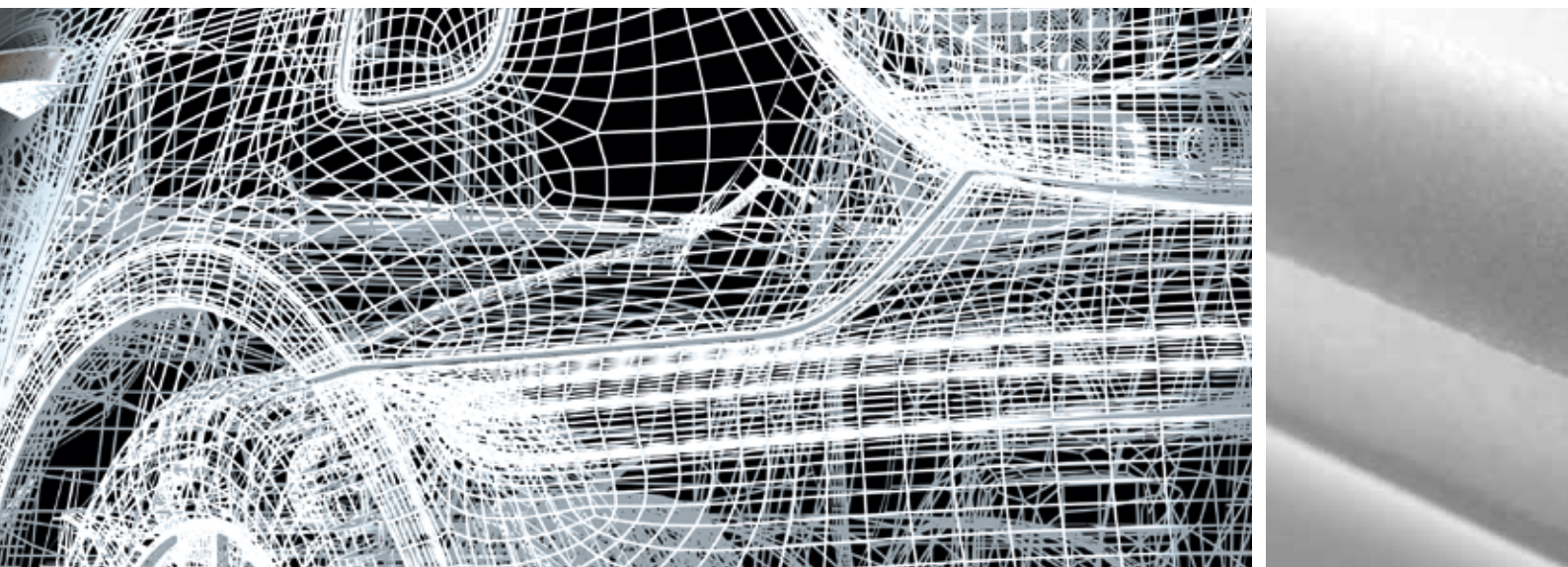
Demanding, understanding, knowing and acting



Foam – a product that we almost take for granted. Nothing spectacular at first glance, but this material always excites us all over again. Because foam is not just foam.

Various technical procedures and refined finishing processes make an inconspicuous raw material into a highly evolved product. Over recent decades, the most stringent needs of our customers, coupled with our constant striving for innovation, have been the main influence on our production and raised our **level of expertise** to the highest point. So if we have become accustomed to anything, then it is the fact that our products are constantly evolving and every solution is an **individual** one. Of course, we can only satisfy people's high expectations of us if we work closely together with our customers, and understand them, their products and their needs. So we are caught in a constant interplay between demanding, understanding, knowing and acting.





# NOMATEC<sup>®</sup>

The journey is its own reward



NOMATEC® is found as a component in numerous products. The **particular** character in terms of shape, function and properties is the common denominator – and at the same time the key to the success of NOMATEC®, because our solutions are just as varied and individual as our customers' requirements.

When we talk about **tailor-made solutions**, then we are talking about NOMATEC®: we regard NOMATEC® not so much as a product line, but more as a smart working process which allows us and our customers to find the right solution to every problem. The shared development of components made from foam, with due regard to economic and functional factors and criteria to do with finishing techniques, is the objective; how this is achieved depends entirely on the requirements.



## NOMATEC® – Functions

### Insulation



Because of their properties, our foam solutions are perfect for thermal insulation in many application areas: whether as thermal bridges for windows and façades in the construction sector, energy-efficient transport of district heating or in general for pipe lagging – NOMATEC® offers effective, efficient insulation all over the world.

### Acoustics



Our foams play an important role in noise decoupling. NOMATEC® is used, for example, to reduce the noise corridor for rail transport; it effectively deadens footstep noise in floors and provides valuable services as an office or space divider. In cars, for example, NOMATEC® is used in A, B and C pillars.

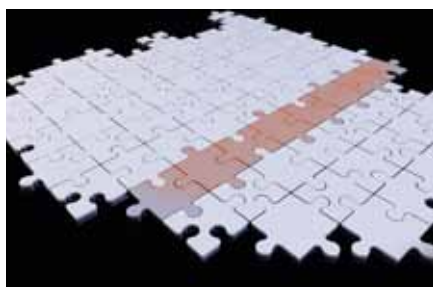
### Buoyancy



Because of their cellular structure, our technical foams are light yet stable. This means they can be used in the most varied areas where buoyancy is required; for instance in shipbuilding or to counter oil spills, if they are deployed as floating booms. They are also used in leisure applications, for example as pool noodles to keep swimmers safe.



### Sealing joints



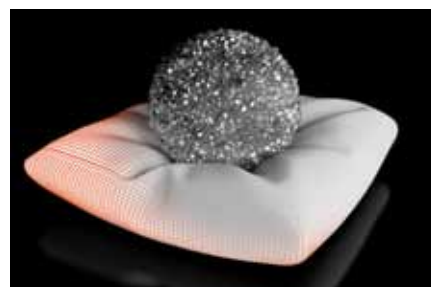
Where sections are assembled for expansion or insulation purposes there will always be joints. These joints need to be sealed for wind and weather protection using a product which will adhere to the shape and size of the original structure. For example, NOMATEC® is used in bridges, between prefabricated concrete elements in bare brickwork or in motorways and taxiways at airports.

### Physical protection



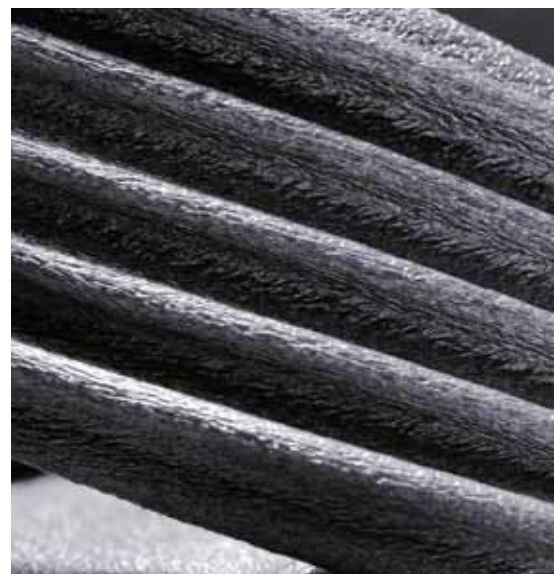
When made into helmets, pads, jump mats or as protective elements around rails and building sites, NOMATEC® foams protect people at work or at play. In high-performance sports, NOMATEC® run-up- and tumbling mats protect the body and joints effectively, thereby helping to prevent injuries.

### Comfort



Our foams make life more comfortable for the user. Whether it be in that perfectly upholstered favourite chair or the mattress for an ergonomic night's sleep – NOMATEC® simply makes everything that little bit more comfortable.





# NOMATEC<sup>®</sup>

Focusing on the customer's wellbeing





Our highly sophisticated production processes and a tireless **spirit of research** allow us to realize pretty much any idea out of foam. We have our research centre in Belgium, where over 40 highly-qualified experts are working on solutions for tomorrow's world. Three per cent of our annual turnover is channelled into the development of new products. Our specialists work on an average of 250 development projects every year – the basis for future innovations. We also maintain a lively exchange with universities and testing institutes.

With some 40 years of experience in foam extrusion and numerous international patents, we ensure the technological progress of our branch. Alongside individual solutions to specific problems, more than 60 ultra-modern **production and manufacturing lines** cover demand for creative foam products. The properties of the material mean that the sky is pretty much the limit: for example, we use adhesives on foam profiles which can be removed without leaving any residue, or we apply complex processes in coextrusion. A wide range of types of foam means that we are always in a position to offer a highly specialised solution. Through the careful choice of our raw materials, we are able to alter such properties as resistance to tensile strength, surface hardness or fire performance. Up to 15 standard colours, coupled with our extensive range of profiles, sizes and densities mean that we can equally cater for individual preferences. We are delighted to supply special requirements of all kinds.

The overarching feature is impeccable **customer service**, with an international network of 19 subsidiaries and eleven production facilities guaranteeing fast lead times around the world.



## Material types

### XPE



We have been producing extruded polyethylene foams with outstanding properties for decades. They include:

- exceptional physical properties
- fire retardant formulations adaptable to be conform with different standards
- very good thermal insulation and footfall noise properties
- odour-free and environmentally neutral
- standard densities of 18 to 400 kg/m<sup>3</sup>
- resistant to temperatures up to 100° C

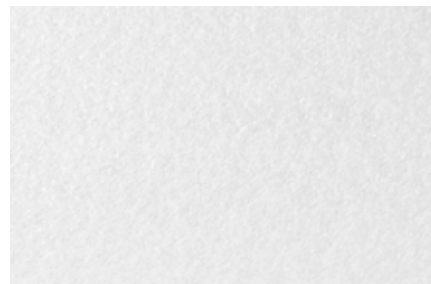
### XPP



Extruded polypropylene foams are becoming increasingly important. Their characteristics include:

- thermoformability
- very good insulating properties
- odour-free, environmentally neutral
- standard densities of 25 to 400 kg/m<sup>3</sup>
- resistant to temperatures up to 120° C

### XPS/EPS



Extruded and expanded polystyrene foams are popular mainly because of their stiffness, density and resistivity. But they also have other advantages:

- high compression resistance
- good insulating properties
- odour-free, environmentally neutral
- standard densities of 16 to 700 kg/m<sup>3</sup>
- resistant to temperatures up to 70° C



## XLPO



The special properties of cross-linked polyolefin foams can be described as follows:

- exceptional mechanical properties
- thermoformable
- resistant to temperatures up to 200° C for short periods
- standard densities of 28 to 200 kg/m<sup>3</sup>

## PUR



Our closed-cell polyurethane foams offer the following main features:

- good insulation properties
- high material density and high degree of hardness
- can be coated with other materials
- standard densities of 80 to 320 kg/m<sup>3</sup>

## Others



Alongside the foams listed, NMC is always willing to work out a solution with you for your specific application. Just ask us!



## Material performance

### Mechanical performance



To guarantee the quality of our foams at all times, our products have to pass extensive tests at our in-house drop test facility, and they are regularly tested for their compression and tear performance.

### Thermal performance



Progressive processes have meant that over recent years, technical foams have become ever resistant to temperature, and can be pressed in almost any conceivable shape thanks to thermoforming. Cross-linked NMC foams can withstand a temperature of up to 200° C over short periods.

### Fire performance



Thanks to the addition of flame-retardant additives in the formulation, we are in a position to adapt our foams to the most varied fire standards for specific applications.





## Colours



Some of our products are available as standard in up to 15 colour variations. On request we can produce profiles in almost any RAL colour in technical terms.

## UV resistance



Over time, the sun will fade almost all colours. Thanks to the addition of UV stabilisers, we can slow down this process and thereby significantly increase the life expectancy of the foams and the colours.

## Other properties



Additives mean that virtually all conceivable properties of the foams can be influenced: for example, they can be used to make the material harder or more flexible. Additives can also enable us to manufacture other foam varieties, both open and closed-cell.



## Material processing

### Extrusion



The extrusion of foam profiles and cross-linked or non-cross-linked sheet material is one of our specialities. Thanks to many years of experience, we are able to combine and optimise various stages in the processing.

### Coextrusion



Coextrusion means that two different material properties can be created in a single process. For example, foam tubes can be coated with a layer of pure PE. Foams and other materials can also be coextruded with colours. The possibilities are almost endless.

### Adhesives



NMC holds a host of patents when it comes to the application of thermoplastic adhesive and adhesive strips on foam profiles and films. We are able to apply protective foams on finished car-paints that leave no residue when removed.



### Lamination



Many of NMC's standard products can be adapted to the relevant area of application in one or more lamination processes. Whether it be foam on foam, lamination with substrates, horizontal or vertical, inline or offline – everything is possible.

### Thermoforming



Thermoforming enables our foam to be heated and pressed into shape. A wide range of extremely complex design criteria can be met, and even three-dimensional end products can be produced.

### Cutting



CNC water jet appliances are used to cut our products, with up to 3,000 bar water pressure and 0.15 mm nozzles with the utmost precision and optimal cut distribution. In addition, punching and milling equipment is available to meet the widest range of processing requirements.





## Material advantages

### Made to fit



We develop and prepare your own personal profile. We don't believe there is any such thing as 'It doesn't fit'.

### Durable



NMC solutions accompany your finished product throughout its entire life cycle and help to ensure long and sustainable use, thanks to the outstanding material properties.

### Light



NMC foams make the work of your staff and your products noticeably easier, because we are able to reduce the density of our foams to 16 kg/m<sup>3</sup>.





### **Fast**



Our solutions integrate into your products in a trice and thereby ensure smooth-running processes and a great success.

### **Ecological**



The high insulation value of NMC foam components of up to 0.034 W/mK at 10° C significantly reduces heat and energy loss and makes our products into genuine energy miracles. The energy savings achieved by our profiles are many times greater than the energy consumed in their manufacture.

### **Economical**



The high fitting accuracy, low weight and ease of processing of our products ensure highly efficient production processes. Alongside the optimum NMC price/performance ratio, this allows an economical production.



# OUR CUSTOMERS

Branches and requirements



Aristotle knew a long time ago that 'the whole is more than the sum of its parts'. To be able to make a top-quality product, the individual components have to be matched to each other in the best possible way, and be of the highest standard.

NMC, the specialist in synthetic foams, produces components which are flexible, safe and fit perfectly. Stringent **demands from our customers** are our bread and butter. So we combine the experience that we have amassed over almost half a century of foam manufacturing with tomorrow's techniques. Our range of products stretches from the automotive industry via building construction and civil engineering, interior design and trade to sports and leisure and rehabilitation. In the dialogue with our customers, we find out what they need and then convert our **joint ideas** into reality. We are looking forward to perhaps being part of your tomorrow's project.

The next few pages will give you a glance of the applications of NOMATEC®. And don't forget: you have an idea – we supply the parts. To make everything fit properly.



## The window and façade industry



We are widely considered to be the leaders in window and façade insulation. The world's top names in the window and glass façade industry use our innovative NOMATEC® foams. Through their high thermal insulation value, the special profiles made for the individual project make a major contribution towards significantly improved energy performance, and thus meet the latest standards.





## Road-building, taxiways and rail construction



In road-building and on runways, expansion joints are poured out for sealing purposes. NOMATEC® backer rods guarantee the correct elliptical form of the flexible seal during pouring. Our foams effectively balance out mechanical loads and differences in temperature, thereby contributing towards lasting coats. Likewise, in railway building, NOMATEC® foams reduce the propagation of noise disturbance into the environment by decoupling the railtracks.



## Sports



Good absorption, fast acceleration and uncompromising floor grip are literally worth their weight in gold in sporting circles. That is why NOMATEC® foams are used to make artificial grass fun and safe for sports lovers. Olympic archery targets contain NOMATEC® to stop the arrows gently and safely. NOMATEC® foams in run-up- and tumbling mats give gymnasts an outstanding service, since the pressure which occurs at the start is optimally cushioned; NOMATEC® therefore really does offer effective protection against injuries.



## Protection



NMC foams offer genuine protection in sports and leisure applications as in the work environment. For example, NOMATEC® is used in many sporting contexts for protection against impacts. As a cladding for pillars, rails and catching nets, or in matting, our profiles help to protect athletes against injury. NOMATEC® fulfils a similar role in playgrounds – so that children can experience the world in a playful and painless way. Craftsmen who often have to kneel down appreciate our NOMATEC® foam in their work wear. NOMATEC® foam solutions also offer reliable protection for those vulnerable heads and elbows. So sports lovers, children and gardeners can give their full concentration to what matters.





## Automotive industry



Comfort is a question of the right technique. In the automotive industry, our foams are used for soundproofing doors and boots and as a filler material in the load-bearing A, B and C pillars. Other applications lie in the passenger compartment and in the dashboard or ensure efficient protection against overheating and cold for various components in the engine area. This helps to make modern cars even more efficient.





## Furniture industry



NOMATEC® special foams are ergonomic and comfortable to sit or lie on. Upholstered furniture also uses our foams in seats and back rests. Our profiles can be cut to fit your finished products and thereby help increase sitting comfort. NOMATEC® is also made into room dividers, which allow an effective optical and acoustic room separation. They are light and flexible, which makes them child's play to erect and take down. Our foams are also used in mattresses, supporting and stabilising the sleeping surface to give you a restful night's sleep.



## Plumbing and heating



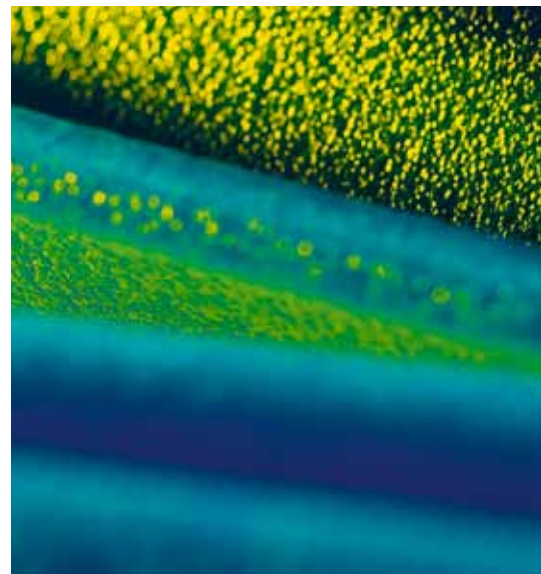
Where you want heat to stay in and cold to be kept out, specialist foams from NOMATEC® are never far away: thanks to its thermoplastic properties, NOMATEC® provides energy-efficient insulation for distance heating pipelines. In collaboration with our partners, we always produce functional and long-lasting solutions. On top of that, we also manufacture pre-insulation foam tubes for the plumbing and heating sector. We work with renowned tube manufacturers, whose products we fit with pre-insulation in the tried and tested NMC quality. In the field of building ventilation, our foams ensure the necessary thermal insulation and thereby contribute towards comfortable, energy-efficient ventilation.



## Others



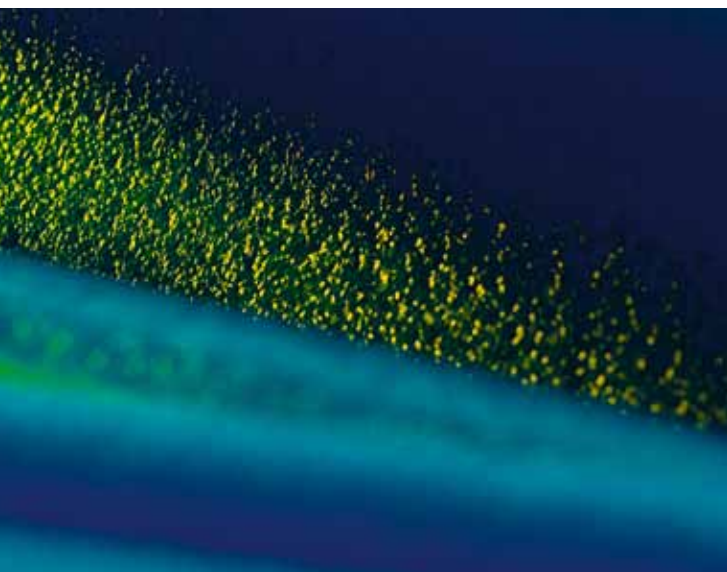
NOMATEC® has enabled us to come up with all kinds of specialist solutions, for example oil booms. There are virtually no limits in terms of material and production possibilities. So we are always delighted to realise even unusual projects. Tailor-made to your own requirements, unique, functional – with NOMATEC® you get your own completely personal foam solution.



# PROJECT EXCELLENCE

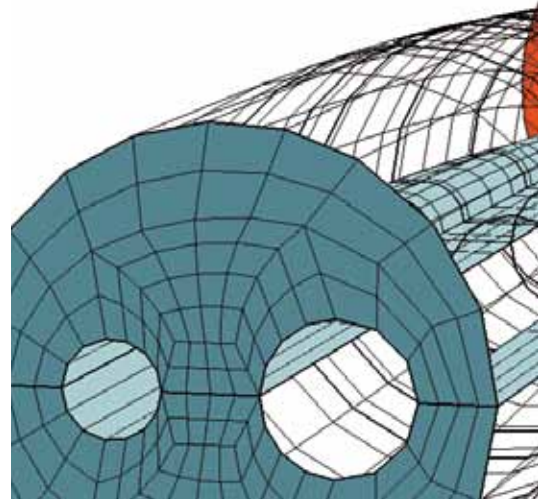
The basis in day-to-day business





Time is money. Your money. A resource which we handle with care. Part of this is that we strive for a **short lead time** for your new ready-made product.

From the idea to the time when a product goes to market, only costs are generated, without obtaining any profit. To reduce this time, our experienced project engineers stay constantly in touch with you be it with joint development on site, the regular checking of the feasibility and the joint implementation of our components into your production. And our **support** carries on after the successful integration. On request, we can train and advise your staff on site. Not least, we have a global presence – meaning that wherever and whenever you need us, we are at your side, making sure that projects translate into results.



## Project support

### Short lead time



Thanks to our experienced, skilled engineers and project specialists, we offer our partners tailor-made solutions and the advantage of short lead times. Side by side, we can sometimes even achieve the impossible.

### Joint development

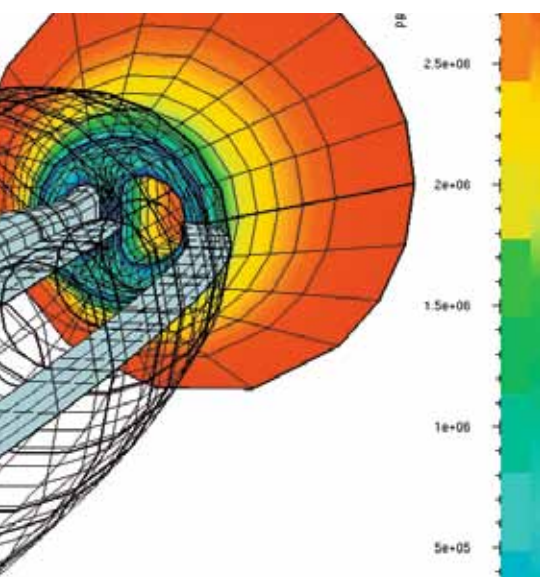


NMC has many years of experience in manufacturing technical foam products, in particular in close collaboration with the customer. Armed with this knowledge, our engineers will support you on site to guarantee the smooth integration of our products into customer-specific manufacturing processes.

### Joint implementation



While the project is being translated into reality, we are always there to help you. We keep our eyes constantly fixed on your problems, verifying feasibility and supporting the implementation. This allows us to make any adjustments necessary in response to any slippage.



### **Flexible solutions**



Our foam products can be adapted to the particular production process in your own company. This guarantees good-value, efficient production.

### **Process engineering support**



With our partners, we always seek and develop solutions that guarantee the maximum functional safety of the finished product. This is why our engineers are at your disposal at all times even in technical questions around processes.

### **Comprehensive know-how**



Almost half a century of experience with technical foams guarantees our partners genuine added value. By using the very latest production processes, developing specific production tools and having the ability to put themselves into any situation in the blink of an eye, our experts manage to find the perfect solution for any application.





## Service features



We advise you on all questions around your particular requirements, and will be here with our specialists to help you out with any problem, however complicated. No special order is too out of the ordinary: just talk to us. In addition, we offer our customers an extensive range of data sheets, sample folders and comprehensive marketing documents, to give them or their customers the opportunity at any time to read up on all the details once again at their leisure.





## Supply chain



Our logistics centre, located at the heart of Europe, coupled with the various subsidiaries, guarantees a perfect coordination and just-in-time logistics, short pathways and quick answers. In our efforts to make the handling of orders and enquiries as efficient as possible, we do not get involved just in on-going projects, we also move further into electronic data interchange. This means that your order processing becomes an automatic, EDP controlled matter.



# NMC

All about protection, beauty and pleasure



### **NMC offers protection**

In addition to a range of insulation materials for building, domestic equipment and appliances, we also develop integrated high-specification products for high-tech industries. NMC special-purpose solutions can be found on the production lines of many well-known companies where they make a major contribution to the perfect functioning of manufactured articles or protect them in transit during or after production. Whether in the automotive sector, architecture, the packaging industry or in sports, NMC provides life support for companies and consumers.

### **NMC creates beauty**

We have mastered the art of making beautiful and inventive products from plastics, such as columns, mouldings and baseboards for interiors.

### **NMC brings pleasure**

We like to play around with foam and create recreational products, such as exercise mats, buoyancy aids, seat cushions, gardening implements and many more items – a one-stop shop for foamed plastic solutions for every area of life.

Read more about our innovative and sustainable products on the following pages.



## Branch of economic activity

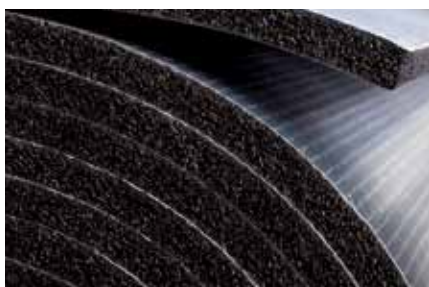
### Industry



#### Industrial components and packaging solutions

- The window and façade industry
- Construction
- Sports
- Protection
- Automotive industry
- Furniture industry

### Isolation



#### Insulating applications

##### Industrial insulation

- Plumbing and heating
- Air-conditioning and refrigeration
- Solar and high-temperature applications
- OEM applications

##### Domestic insulation

- Parquet
- Wall, ceilings and floors

### In the home



#### Interior decor

- Mouldings and ceiling centres
- Ceiling tiles and liquid wallpaper
- Chair-rails and baseboards
- Columns and pilasters
- Lighting solutions





## On the house



## Around the house



## Sport/leisure



### Outside

- Door and window frames
- Window sills
- Stringer courses
- Façade elements
- Keystones and corbels

### Patio and grounds

- NOMAWOOD® decking and fencing

### Recreational products

- Games
- Sports
- Gymnastics



# NMC

What matters to us



Every now and then we all ask ourselves what the future might bring. Our **future** is undoubtedly in foam. Making industrial foams entails know-how and innovation. Our rich supply of experience is teamed with valuable observations from practical applications and theoretical insights from our research centre. And so the visions of today evolve into the top products of tomorrow.

**Quality** will continue to be at the top of our agenda in future. Products are increasingly being made by machines. Yet their monitoring and the development of processes and materials lie entirely in the hands of our 1100-strong workforce. Perhaps it is the foam itself which makes our staff so dedicated? Whether they are working in customer service, research, production, order processing or delivery, the fascination for our soft, warm, flexible and yet resistant basic material is universally manifest. And to further reinforce this positive attitude we have adopted a quality management system certified as conforming to ISO 9001:2008.

The basic ethos of NMC is acting with personal responsibility – including towards the environment. We pay more than mere lip service to effective **nature conservation** and prefer to let our actions do the talking. The “Responsible Care” initiative of the chemical industry is our inspiration and basis for action. The new EU regulation on chemicals, introduced in 2007 and dealing with the registration, evaluation and authorisation of chemicals, or REACH for short, is also an important guide for us. We also recycle almost 100 per cent of the polyethylene rejects from production, to name but one example in this regard. These will continue to be our guiding principles in future. Indeed, a quality mindset and visionary action inevitably lead to greater quality of life. Today, tomorrow, and the day after.



[www.nmc.eu](http://www.nmc.eu)

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