



insight.

MAGAZINE



Cellular rubber Cellular polyethylene Sponge rubber Fluid sealants Solid rubber Filter technology Special products

special

▶ **Cellular materials**
Polyethylene,
Cellular rubber
and
Sponge rubber
Made by KÖPP



▶ **FIP(F)G**
In every form.
In series.

▶ **Filter technology**
A clean business

KÖPP
PRESENTS
KOEPPcell®

Cellular polyethylene



If you like, however, you could also find out everything face-to-face at the upcoming "K2016", THE international plastics tradeshow in Düsseldorf. As usual, we will be there to present ourselves on what is known as the "rubber street". Our exhibition stand is twice as big this year because three years have passed since the last "K" and quite a lot has happened at KÖPP. In particular, we have become a very dynamic manufacturer, in addition to enhancing our activities as a dealer, processor and service provider. The strong market demand for high-quality semi-finished products at attractive prices with quick availability has greatly propelled product development. And our continuously growing market share proves that we were right in making significant investments in know-how, equipment and warehousing space.

I am convinced that our redefined manufacturer profile will guide us into the future in a positive way. It makes us more independent from our upstream suppliers and gives our customers advantages in terms of pricing and availability. In addition, our uniquely broad profile as a comprehensive sealing expert guarantees us an expanded field of activity. This security factor cannot be underestimated, given the backdrop of current European political events. Thus, Brexit has not yet affected us as a dealer in British products. We have to wait and see whether this will continue. Regardless, we will continue to pursue our goals as a company that is ambitious, market-appropriate and far-sighted.

We will keep you up to date.

Warm greetings, we'll see you at the K.

Achim Raab
Managing Director



Dear readers,

KÖPP gets mixed up in it all! This could be a very accurate description of our activities, especially in the past few months, because while we were expanding our manufacturing capability, we have continuously developed formulas, stirred mixtures and successfully brought the resulting products to market readiness.

Our **KOEPPCell®** product line is growing, and conquering the European market from our German and Romanian facilities. Our latest in-house manufactured product is a high-quality polyethylene block foam. Our PE, which is now available in our portfolio as a supplement to our popular retail grades, is a favourable alternative in price as well as quality for applications such as those in the packaging sector. Read more on page 4 of this special edition of **insight**.

Cellular materials

Made by
KÖPP 
 experts in foam

“Producing things ourselves is better than buying” – with this simple explanation, Sales and Marketing Manager Axel Wynands gets right down to the reason for the ever-growing line of **KOEPPcell®** materials. More flexible, more efficient, more affordable. “Moreover, this means that we have the quality of our products in our own hands,” he insists.

Cellular materials have been produced at KÖPP for a long time; the path from sponge rubber to cellular rubber and now cellular polyethylene was only a matter of time. In making the big step from dealer to manufacturer in many sectors, KÖPP has very intentionally engaged in backwards integration, which pays off for both the company and the customer. “We can react to customer needs much more quickly and implement them in individual, cost-effective ways,” Axel Wynands confirms.

KOEPPcell® materials are known in the market for their quality and suitability.

All *Made by KÖPP* materials have a common cell structure and application for sealing needs. However, the materials differ considerably in their respective production processes, and are made with different materials. Ultimately, that has its advantages! In terms of materials, KÖPP’s broad range is not set on one material, it’s completely dependent on customer requirements. “Sponge rubber has its strength as a moulded part for dynamic loads, while cellular rubber is appealing, among other things, due to its very good resistance to different types of environmental conditions. Moreover, polyethylene offers other advantages for packing applications,” says Axel Wynands. “We have the required experience and equipment. Here, the customer will certainly find the right material for his application – *Made by KÖPP.*”

“The customer will certainly find the right material for his application – Made by KÖPP. Find out for yourself at K2016. We are looking forward to your visit.”

Axel Wynands, Sales and Marketing Manager





Cellular

Growth in the product portfolio: KÖPP manufactured grades

Everyone knows that KÖPP has been selling high-quality polyethylene block foam successfully for almost 30 years. This product segment is among the highest turnover areas in the company with a rich tradition. Now, however, there is an addition to the previous portfolio, with two grades of closed-cell, cross-linked polyethylene block foams in black and white produced by KÖPP. The reason for expanding the product range is just as simple as it is illuminating: the General Manager explains it with one word – “demand”.

“I am certain that we can enhance our previously successful portfolio in a meaningful way and that the market will react positively to our new offer.”

Achim Raab, MD

“Our polyethylene block foam product portfolio, until now, has consisted almost exclusively of nitrogen foamed grades in many colours, which are absolutely pure, fogging-free and chemically inert. However, particularly in the packaging sector, we continue to have customers who do not have such complex demands on the material. It becomes then simply too expensive for them,” explains Achim Raab. “That is why we have developed and now manufacture an additional high-quality chemically cross-linked grade that we can offer at a competitive price.”



P



Dr. Andreas Peine
Business Development Specialist

KOEPPCell®

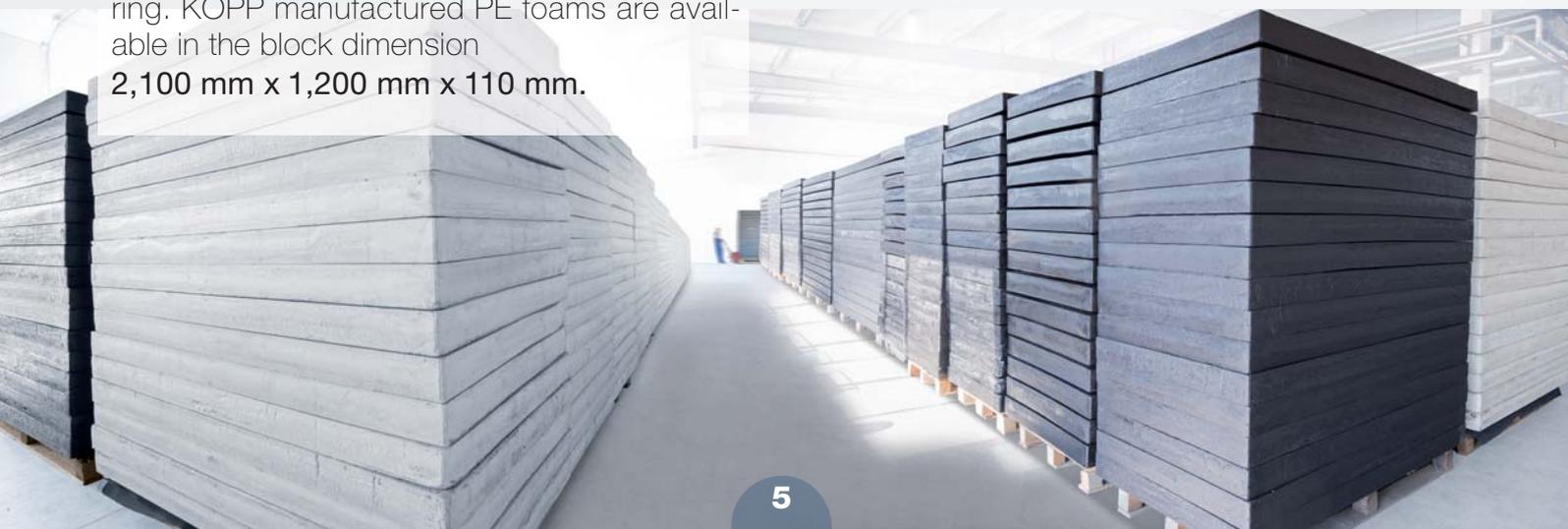
Polyethylene

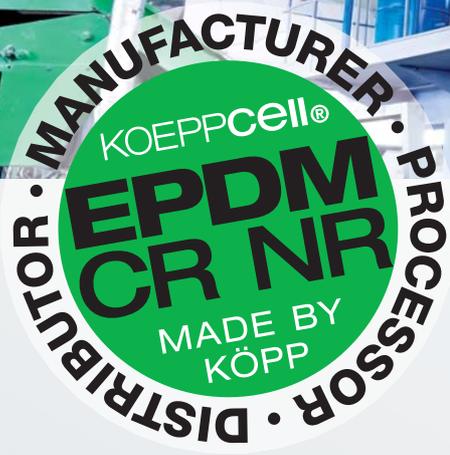
Made by
KÖPP 
experts in foam

“I am certain that we can enhance our previously successful portfolio in a meaningful way and that the market will react positively to our new offer,” notes Achim Raab. At the production facility in Romania, both the machine fleet and the manufacturing team under Managing Director Valentin Dublea are prepared for a large demand.

With densities of 30 and 35 kg/m³, available in a deep black and a clear white, the KÖPP in-house PE grades cover a very broad range of requirements. Here, you will appreciate the impressive product quality. They are virtually odour-free and thermo formable, with low emission values, and good processing characteristics: cutting, splitting, punching and even laser cutting. KÖPP manufactured PE foams are available in the block dimension **2,100 mm x 1,200 mm x 110 mm.**

“The production of our in-house polyethylene occurred to us during the production of our KOEPPCell® EPDM-PE blend,” explains Dr. Andreas Peine, who is responsible for product development. Of course, the addition of other grades is also conceivable. Currently, we are much more focused on expanding our market offering in line with customer demand and successfully operating a volume business for the packaging sector.





Also watching the American market

Eventually, we want to be able to serve the North American market with dimensions that are typical for this territory, and so now we are investing in new equipment. KÖPP will be the only European supplier to deliver the block dimensions **approx. 54 x 80 inch (approx. 1,370x 2,030 mm)** “across the big pond” in the future, made at our successful Romanian production facility.

Quality (trade name)	Chemical properties / resistance						Mechanical properties		Physical properties		
	Ozone/Elements	Alkalis	Acids	Mineral oil - Petrol Diesel - Biodiesel	Water (at 100°C)	Light	Good tensile strength and good elongation at break	good DVR values	Temperature- resistance	Flame- resistance	
EPDM sulfur free	EPDM-L	+	+	+	-	+	+	+	+	+	+
	EPDM-S	+	+	+	-	+	+	+	+	+	+
	EPDM-W	+	+	+	-	+	+	-	+	+	-
	EPDM-SUW	+	+	+	-	+	+	-	+	+	-
	EPDM-L/Perox	+	+	+	-	+	+	+	+	+	+
	EPDM-S/Perox	+	+	+	-	+	+	+	+	+	+
	EPDM-W/Perox	+	+	+	-	+	+	-	+	+	-
	EPDM-SUW/Perox	+	+	+	-	+	+	-	+	+	-
EPDM-PE-Blend	+	+	+	-	+	+	-	-	+	-	
NR	ZK/NR-L medium	+	+	+	-	+	-	+	+	+	-
	ZK/NR-S firm	+	+	+	-	+	-	+	+	+	-
CR	ZK/CR-L medium	+	+	+	+	+	+	+	+	+	+
	ZK/CR-S firm	+	+	+	+	+	+	+	+	+	+

excellent: + very good: + good: + not suitable: -

For further detailed material specifications please visit our homepage www.koepp.de.



KOEPPCell®

Cellular rubber

Made by
KÖPP 
experts in foam

“Direct deliveries of blocks, sheets and rolls from our production facility offer our major customers a significant price advantage.”

*Valentin Dublea,
Managing Director of SC KOEPP Romania S.R.L.*

A wide spectrum in terms of weight, properties and application areas

Cellular rubber has been solidly associated with the name KÖPP for decades. As a manufacturer, dealer and processor of the material, KÖPP has consistently shaped the quality of this all-rounder for sealing and insulating applications, and has always further developed and optimised its products in response to high customer demand. Expansion under the brand name of KOEPPCell® has been so brisk in the last few months that the last year’s edition of **insight.special** covering cellular rubber was republished in an updated form (available as a download at www.koepp.de). “For me, this is impressive proof of how we dynamically take on and implement customer requirements,” comments Sales Manager Axel Wynands.



“...appropriate offer,” says Axel Wynands. This self-concept is also reflected in the newest product innovation: peroxide cross-linked EPDM foams. Peroxide cross-linking instead of the sulphur based version is generally preferred by customers involved with LED technology. Therefore, KÖPP now offers all current EPDM grades with peroxide cross-linking. “Even here, we are very conscious to focus on our entire offering and not only one single density. We can then do justice to the widest range of requests”, adds Axel Wynands.



**“Old fashioned”?
Under no circumstances!
Rather “high-performance”
and always growing.**

Sponge rubber has a long tradition as a sealing material, though several predictions have been made through the years about it being replaced by modern materials. And yet sponge rubber has often turned out to be the first-choice seal solution. This is particularly true when it involves demanding applications. The reason is that sponge rubber seals combine high pressure elasticity with a particularly good re-setting capability. Also, under minimal pressure, the profile permanently nestles into its environment and thereby seals reliably – also against water due to its non-permeable external skin.

Sponge rubber also becomes indispensable for the storage of fragile products, as a flexible compensation or noise insulation element. The unbeatable mix of softness, elasticity, surface design, individual shape and stability makes this possible.



Sponge rubber

Constantly producing new mixtures in response to strong customer orientation

KÖPP is offering its customers an extensive and individual product range, as the only European manufacturer of sponge rubber moulded parts and profiles: from source seals to silicone profiles. In the perfectly equipped lab at the Bovenden facility, under the direction of Dr. Andreas Peine, new mixes are being continuously developed and, depending on the composition and process, these products show the widest range of properties in terms of temperature, age or oil resistance, flame resistance or chemical resistance.



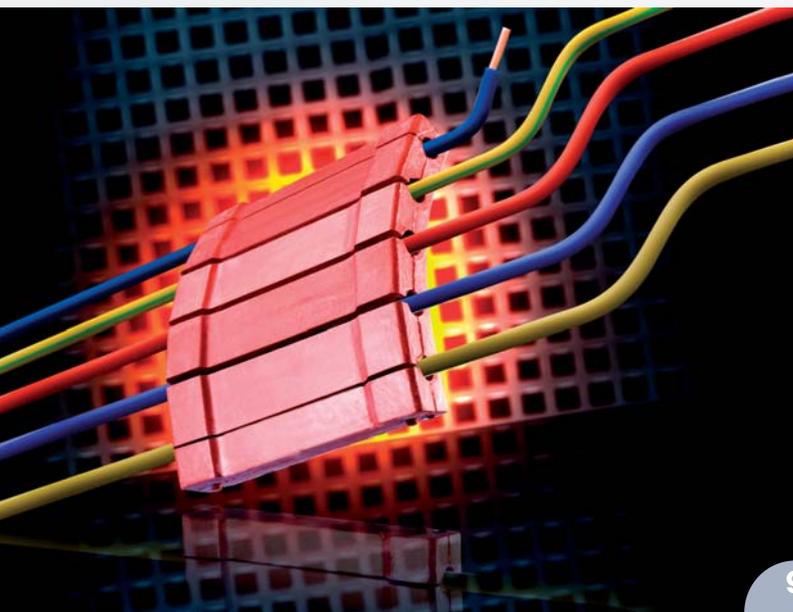
“Due to our many years of production know-how, we instinctively know what is possible.”

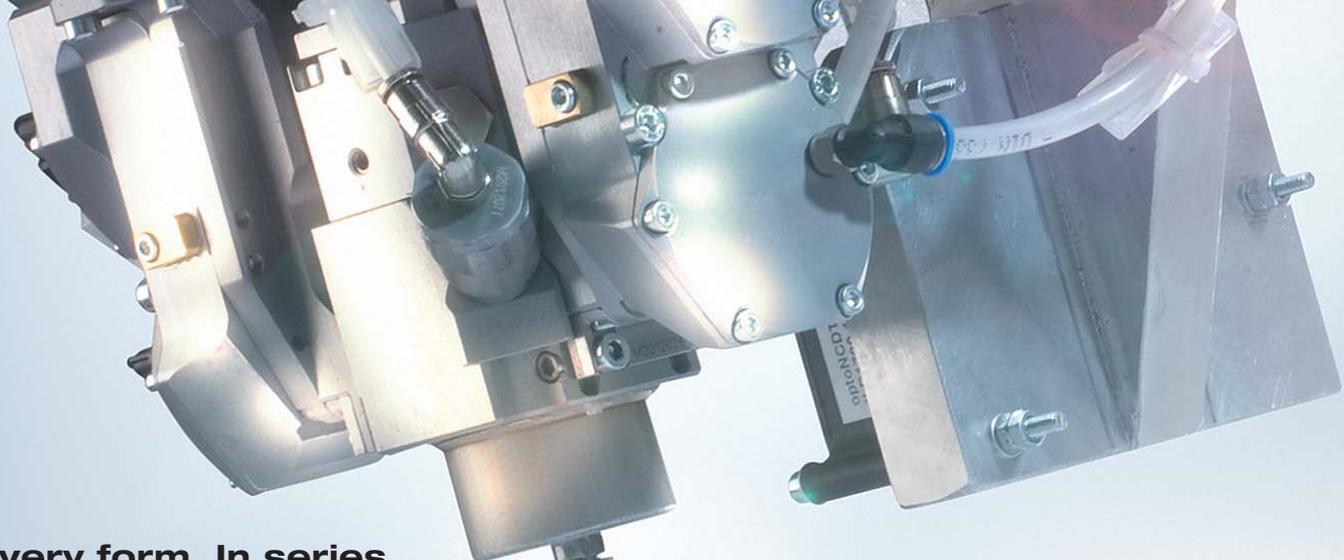
Walter Koch, Manager of the Bovenden production facility

Made by
KÖPP 
 experts in foam

“The individual design capabilities that sponge rubber offers are helping us become an increasingly important and highly specialised partner for our customers,” explains Dr. Andreas Peine, Development Specialist and Laboratory Manager at Bovenden. “KÖPP has been producing sponge rubber since 1971.” “Due to many years of manufacturer know-how, we simply know what is possible,” adds Walter Koch, manager of the Bovenden production facility, where solid rubber is also produced.

“Sponge rubber is still a growing product segment at KÖPP. Due to its properties, our very extensive formulation variations and manufacturing processes, we are sure it will stay that way,” ensures Dr. Andreas Peine.





In every form. In series.

In the past 15 years, KÖPP has become established as Europe's largest service provider for freely applied fluid seals, adhesive applications and casting technology. More than 50 employees, a modern machine fleet, two locations in Germany with extensive warehouse and logistics capacities and many years of experience spread across a large team of experts guarantee perfection for the customer. In every form. In series.

KÖPP 
experts in foam

Fluid



FIP(F)G sealing systems are perfectly bound to the substrate. These highly elastic, dimensionally-precise and affordable seals made of polyurethane (FIPFG) or silicone (FIPG) can be applied in the fluid state to the workpiece using a robot. The need for contour precision for very complex geometries makes a fluid seal the ideal solution in many sectors.

The foamed, soft-elastic FIPFG seals are appealing due to their mixed cell structure with minimal deformation residue and optimal seal properties. Adhesive, sealing or casting applications from 1-component materials (FIPG) create the perfect supplement to this. "Our 1K dosing systems apply sealing widths to under 0.5 mm perfectly. There is also a triangle profile crawler with a temperature stability of up to 250°C," states Markus Peitz, FIPFG Key Account Manager, as examples of the processes technical variety.

"In the search for customised sealing solutions, our customers tend to involve us more and more in their plans from the very start. That is a good thing, because we are in a good position to offer customised solutions for the preparation, dosing, mixing and application of one, two or multiple-component adhesives and polymer seals, and thereby we take all procedural requirements of the production process into account. This is how we develop process-secure concepts which pay off for our customers," Peitz continues.

"In the search for customised sealing solutions, our customers tend to involve us more and more in their plans from the very start."

*Markus Peitz,
Key Account Manager FIP(F)G and KÖPP-Filter technology*

Seals Seal precisely. Directly on the component.

More and more customers use outsourcing

"Our machine fleet is among the largest and most modern in this service sector," affirms Markus Peitz. With three 1K systems, two six-axis robots and eight three-axis robots, KÖPP has a variable and ultramodern machine fleet at two locations. Added to this are unparalleled and extensive logistics capacities. This is the reason more and more customers procure large annual volumes (up to 100,000 components per year) via KÖPP. In addition to the precise application of fluid seals or adhesives, you can also rely on us for careful handling of your work pieces at all stages and on-time shipping.





Since the filter technology department opened in 1965, KÖPP has been offering its customers individual solutions for liquid filtration, ventilation and de-ventilation, noise insulation and dust filtration. Even if filter devices and materials cannot be thematically integrated into the product portfolio at first glance, when it comes to the topics of sealing and insulating, KÖPP Filter Technology is writing an important chapter in the company's success story. Even last year, this company division showed a strong turnover growth of 12%.

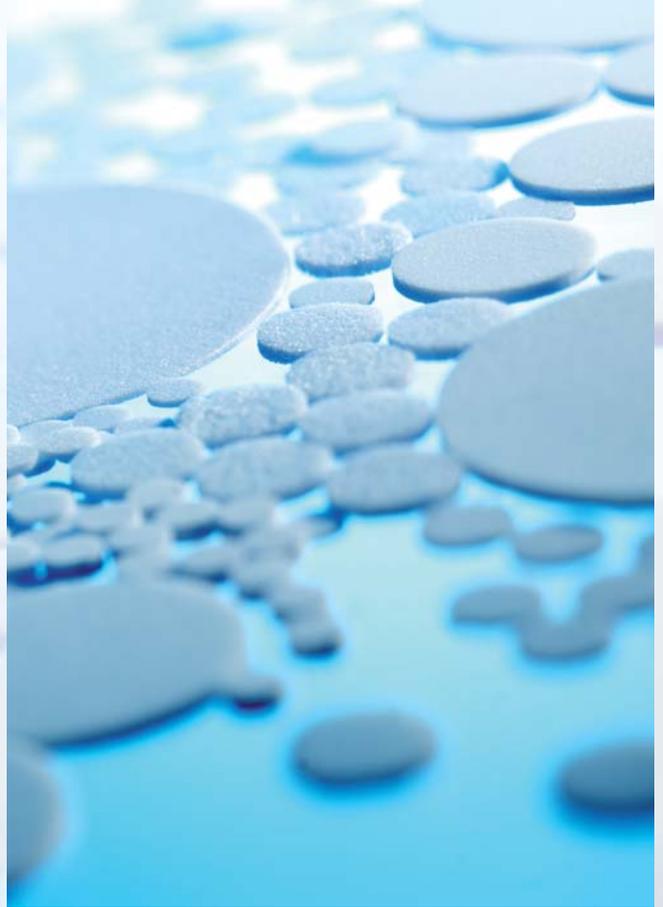


Filter



Filter materials with positive characteristics through and through

KÖPP has always relied on the proven filter materials VYON® and GURON® – open-cell porous polyethylenes with excellent positive properties: safe for humans, temperature-resistant, extremely corrosion and chemical-resistant, light, environmentally-friendly and affordable. These products are in high demand, with applications in the following sectors: filtration of blood, water or air; ventilation of liquids or power-formed media; as a noise insulator for compressed air applications or as a moulded part in joint inserts of highly developed prosthetic parts. The extremely versatile properties of these filter materials creates endless possibilities. Ideal for customised solutions.



technology

A **clean** business

"In order to make us even more independent from upstream suppliers, we decided to create our own in-house KÖPP filter heads."

Laure Walter, KÖPP-Filtertechnik

New: in-house filter heads

Reliable filtering puts high demands on the hardware. KÖPP has a very solid position with water filters, hot water safety filters, magnetic filters and special filters. It can also make its customers attractive offers with its in-house produced filter cups and filter heads. "We have carried our own filter cups for quite some time. In order to make us even more independent from upstream suppliers, we decided to create our own in-house KÖPP filter heads," explains Laure Walter, who oversees the company division of KÖPP Filter Technology.



Locations

KÖPP – we are not just in Aachen now.
We haven't been for a really long time.



Aachen

Today, KÖPP is a multinational Company with four global locations. Every facility specialises in its own topic area: Our activities include sponge rubber, solid rubber and FIP(F)G products at the German branch plant in Bovenenden, cellular rubber and polyethylene products in Romania and the production of solid rubber and EPDM grades at the joint venture in India. With the acquisition of different production facilities, we gradually took the big step from dealer to manufacturer of our own material grades.

All plants ultimately come together in Aachen, where the administration of W. KÖPP GmbH & Co. KG continues to be based. In addition to the processing and storage of in-house and retail merchandise at the Aachen headquarters, the impressive FIP(F)G machine fleet. The KÖPP filter technology are all sold from here. We intentionally chose to diversify our business segments in this way. Of course, it offers the company a certain sense of security, but it also provides the customer with a practical “one stop supplier”. Directly from the respective production location – and always a guarantee of the high KÖPP quality that our customers have become accustomed.

Company headquarters

W. KÖPP GmbH & Co. KG
52080 Aachen, Germany

- **Founded in: 1938**
- **Approx. 130 employees**
- **Main administration**
- **Storage and processing of in-house and commercial goods**
- **Production area: approx. 12,000 m²**
- **Warehouse space: approx. 8,000 m²**





Bovenden



Branch plant

W. KÖPP GmbH & Co. KG
37120 Bovenden, Germany

- Takeover: 1971 (Foam rubber plant R. Haupt)
- Approx. 80 employees
- Production of sponge and solid rubber products
- Production of fluid applied seals - FIP(F)G
- Production area: approx. 6,000 m²



Romania

Production facility

SC KOEPP ROMANIA S.R.L.
Arinis Maramures, Romania



- Founded in: 2011
- Approx. 60 employees
- Production of cellular rubber and polyethylene
- Production area: approx. 4,500 m²
- Warehouse space: approx. 2,500 m²
- Capacity cellular rubber: up to 150,000 blocks per annum
- Capacity cellular polyethylene: approx. 35,000 m³ per annum
- Investment to date: over 5.5 million EUR



India

Joint Venture

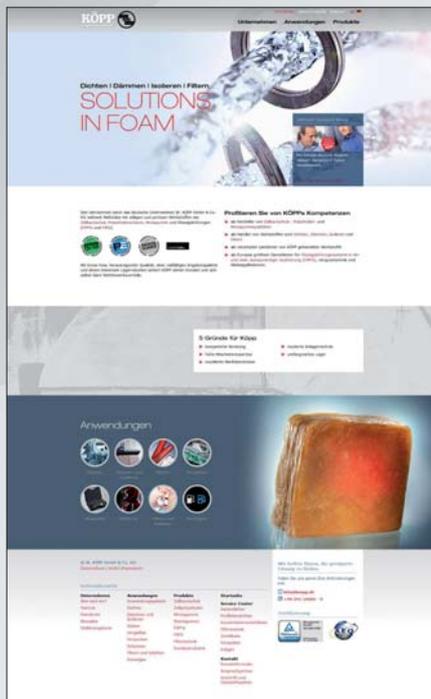
ROOP KOEPP FOAM TECHNOLOGIES PVT. LTD.
Sohna (New Delhi), India

- 50:50 Joint Venture since 2011
- Partner: Roop Polymers Ltd. is a leading manufacturer of solid rubber in India
- Production of cellular rubber (EPDM)

www.koepp.de

New online presence

Right on time for K, we are also re-introducing ourselves with a new online platform – this will include all our products and contact details. It's informative and clearly structured, so that you can find what you are looking for more quickly. Unlike our previous website, we have not only arranged our versatile solutions according to product groups, but also according to possible applications. From the customer perspective, this approach seemed to be the only logical way for us. That is because the question, why am I looking for a solution, comes up before people search for the actual product – particularly when you do not know exactly which material has the properties that you need for your application. The best thing is to try us out right away. Perhaps you have an application that you have not associated with our products until now.



“Unlike our previous website, we have not only arranged our versatile solutions according to product groups, but also according to possible applications.”
 Miriam Mapelli, Marketing and Sales

insight. Publishing information
 Editor: Axel Wynands
 Text: Susanne Neumann, Miriam Mapelli
 Translation: Arancho doc Group
 Pictures: HOSAN Photography, KÖPP
 Design: WILKEDESIGN, Aachen
 Printer: Druckerei Scholz
 Version: 10/2016

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