

PRODUCT CATALOG 6.0



www.de-pack.de

THE PACKAGING. THE SOLUTION.

ONLINE AT SOCIAL MEDIA

You can find DE-PACK and our packaging know-how also on the following popular social media platforms.



Table of contents

Discover our wide range of packaging solutions for all types of industries.

1. rein papier ® PACKAGING	Page 02
2. CORRUGATED CARDBOARD/SOLID CARDBOARD PACKAGING	Page 06
3. RETENTION/MEMBRANE PACKAGING	Page 10
4. RIPPLEX PACKAGING	Page 12
5. FOAM PACKAGING	Page 14
6. TWIN-WALL SHEETS PACKAGING (HKP)	Page 16
7. THERMOFORMED PACKAGING	Page 18
8. PARTICLE FOAM PACKAGING	Page 20
9. THE COMPANY	Page 22
10. SUSTAINABILITY/CERTIFICATION/CLIMATE NEUTRAL	Page 24





DE-PACK
The Packaging. The Solution.



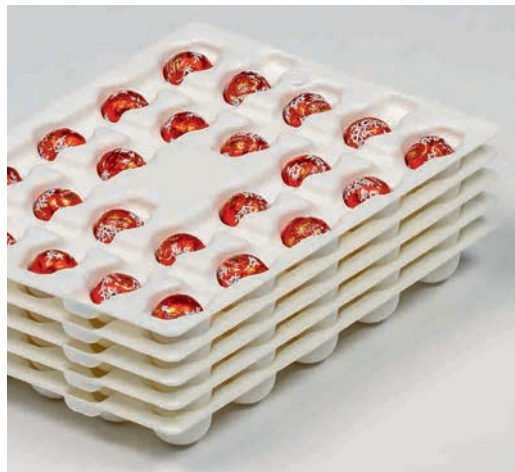
rein**papier**[®] by DE-PACK Packaging

Paper injection moulding packaging solutions are among the most environmentally friendly packaging materials in the industry.

With reinpapier[®] we can reduce the environmental impact of packaging to a minimum.

Learn more on
www.de-pack.de





reinpapier®

by DE-PACK



Our superior quality products are realised through a high degree of creativity, technical innovation, and a great deal of know-how.



What is reinpapier®?

The reinpapier® brand is a new type of ecological packaging developed to meet the high demands for environmentally conscious packaging. One of the most sustainable packaging products of recent years, reinpapier® is made from an innovative mixture of totally natural ingredients. Our exceptionally environmentally friendly packaging considerably offsets the negative environmental impact of plastic waste on our ecosystem.

rates). In contrast to table potatoes the relative production yield is higher. Industrial potatoes can also be used for natural adhesives but are not suitable for consumption!

12% Paper fibres

The paper fibers consist of a mixture of long and short paper fibers. These are FSC®™ certified fresh fibers. This guarantees a highly efficient ecological production chain from cultivation to the end product.

18% Water and a special admixture

These two substances provide the final binding of the paper mixture.



100% ecological use of raw materials

We focus on the ecological use of raw materials in the production of reinpapier® packaging! The main ingredients used are water, paper fibers and industrial starch.

This results in high-quality and sustainable packaging solutions that meet almost all requirements of the packaging industry with a 100% natural origin.

Sustainable raw material mix

reinpapier® is remarkable with a composition of 100% ecological materials. This consists of:

70% Industrial strength

The required starch is obtained from conventional industrial starch (from industrial potatoes) and residual byproducts from the production of French fries, both of which can be dynamically used as a renewable resource for reinpapier®.

This means that the production or the cultivation focus is not dependent on food resources -- food waste is avoided. Industrial potatoes (much larger and thicker than table potatoes) grow on a wide variety of arable lands and contain almost no sugar (carbohydr-

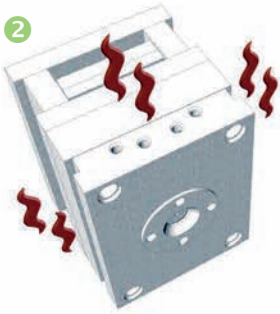




Paper injection moulding in three steps

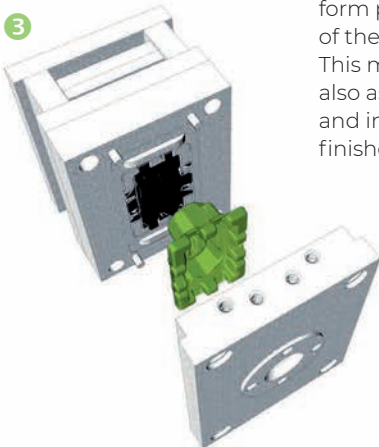
Step 1. Injection

The paper mix is produced and injected into an aluminum mold by means of a specially developed injection molding process.



Step 2. Baking process

The paper mixture is "baked" in the specifically designed mold at a constant temperature of approx. 200 °C. The paper mixture is then dried in the mold.



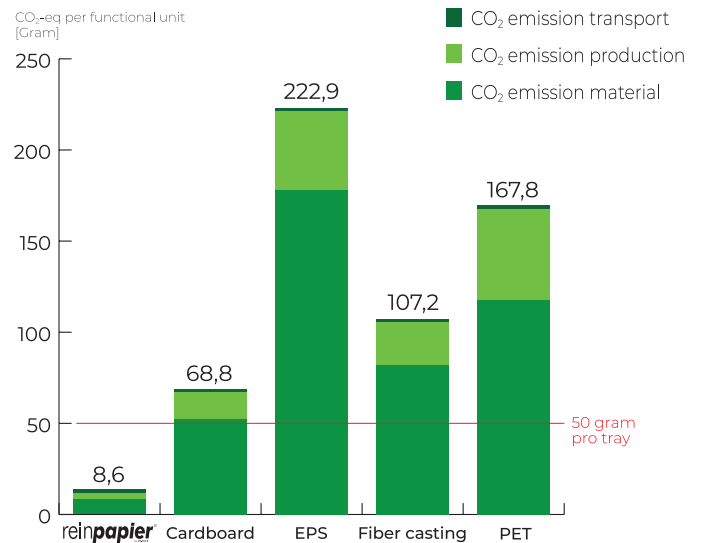
Step 3. Demoulding

The finished product is removed from the mold. The use of specific molds will assure that the finished product will conform precisely to the contours of the product being packaged. This manufacturing process also assures smooth surfaces and increased strength in the finished product.

CO₂ emission per tray

The carbon footprint of reinpapier® is more than 85% lower than that of comparable packaging made of plastic or paper pulp.

This is the result of using renewable raw materials as a base, low water consumption during production, reduced packing weight, high energy efficiency in logistics and production and non-toxic waste disposal.



Measurable advantages

- + Made from renewable raw materials
- + Resource-friendly - From FSC®-certified forest
- + 100% recyclable - Disposal with waste paper
- + Biodegradable and compostable
- + Non-toxic, food safe and environmentally friendly
- + Can be safely sterilised via gamma irradiation
- + Low global warming potential value (GWP)
- + Low CO₂ emission production
- + Low water and energy consumption
- + Resistant and dimensionally stable
- + Excellent surface and scratch protection
- + High/deep embossing of logos or text
- + Precisely fitting fixation of products or product sets
- + Molded parts can be nested and stacked to save space
- + Unlimited colour possibilities
- + Industry-independent application possibilities

100% recyclable and compostable

reinpapier® is considered to be compostable or biodegradable because it consists of raw materials that are naturally compostable. reinpapier® can quickly decompose with other bio-waste by conventional paper recycling means, in the garden, or in industrial composting plants. The actual composting process takes place through the decomposition and conversion of organic substances (bacteria, fungi) by microorganisms. In order to achieve optimal composting of the material, a correct state of aggregation is essential.

reinpapier® is 100% recyclable. The end user can dispose of the packaging parts that are no longer needed with the waste paper.



Das Zeichen für verantwortungsvolle Waldwirtschaft





DE-PACK
The Packaging. The Solution.

Corrugated Cardboard-/ Solid Cardboard Packaging

DE-PACK offers environmentally friendly corrugated and solid cardboard packaging in all conventional varieties and designs.

Corrugated or solid cardboard products are robust, stable and durable, but above all, economical and environmentally friendly.

Learn more on
www.de-pack.de



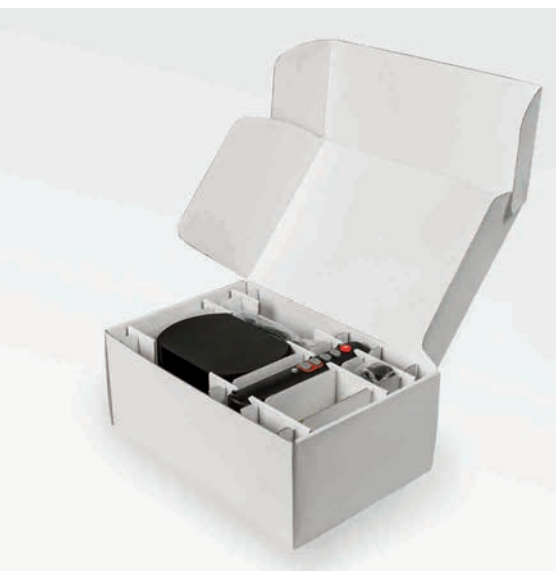
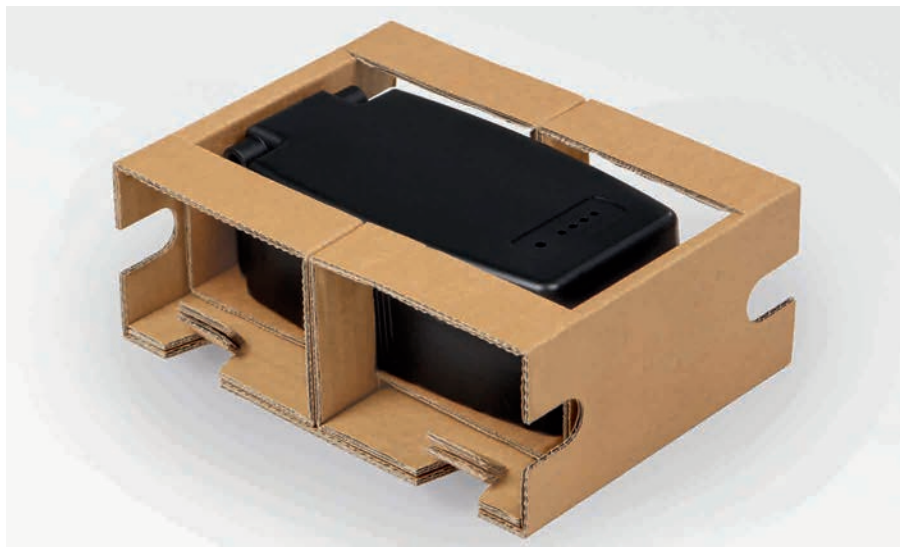


We develop customized, contoured Corrugated or Solid Cardboard transport packaging, die-cut packaging, sales and design packaging, including complex protection requirements. Our corrugated cardboard and solid cardboard packaging feature variable sizes and fit the needs of multiple industries. Packaging sleeves from corrugated or solid cardboard are the most commonly used packaging materials because of their low weight, extreme tear-resistance and stability in design. The packaging elegantly presents your products and can be enhanced with your Corporate Identity printed on each package.

We also offer special versions with antistatic protection and ESD (electrostatic discharge)/VCI (volatile corrosion) protection. These versions are ideal for many technical sector products and application. The special design structure for single, double or triple-walled cardboard accommodates a wide variety of applications typical for the transport or logistics industry.



Grass board and Grass Paper materials are efficient and inexpensive. They save transport and storage costs because they can also be stacked and folded. They are reusable, so they are efficient in the use of raw materials and can be optimally recycled.



Less weight, less material used

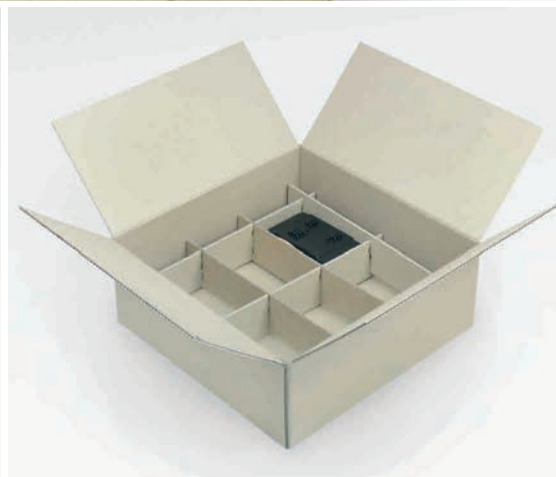
Responsible use of resources guides our thinking, so we have expanded the ecological potential and advantages of environmentally friendly corrugated and solid board in our product portfolio to include Grass Board or Grass Paper.

By using grass fibers in combination with paper, cardboard and cardboard packaging, we can significantly improve the ecological balance and offer our customers even more sustainability.

Grass Board or Grass Paper consists of 50 percent of a new type of fresh fiber material (raw material: pellets) based on grass. The remaining component in the cardboard or paperboard is the usual wood pulp. This means that the product can boast a high sustainability factor in this composition. Grass is a natural and very quickly renewable raw material. The end product is of course optimally recyclable.

Grass Paper/Board Packaging

made of natural fibres, mechanically processed, without the use of chemical additives.





DE-PACK
The Packaging. The Solution.

Retention/ Membrane Packaging

Secure packaging does not have to be complicated. Film retention provides maximum protection along with an appealing product appearance.

Creative retention/membrane packaging solutions one-, duo- and tri-fix are quick solutions for the effective protection of sensitive and high-quality packaged goods.

Learn more on
www.de-pack.de



The one-part packaging solution

one-fix is a retention packaging with highly elastic and slip-resistant film (PE/PU plastic) that secures your product and protects it from damage due to impact, vibration and external influences. The packaged goods are quickly secured by foldable flaps which stretches the foil and creates the closed package. The foil can be easily loosened at any time by unfolding the flaps.



The two-part packaging solution *duo-fix* is comparable to the one-piece retention packaging, except that a corresponding outer carton is used here. This special construction design allows for safe handling of your products.

The three-part packaging solution *tri-fix* is a membrane cushion packaging. The packaged product is effectively „suspended“ within the outer carton between two highly elastic, non-slip foils.





DE-PACK
The Packaging. The Solution.

ripplex Packaging

ripplex – Ecological molded parts made of laminated corrugated board.

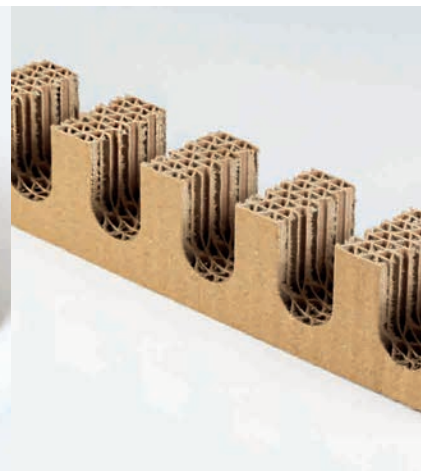
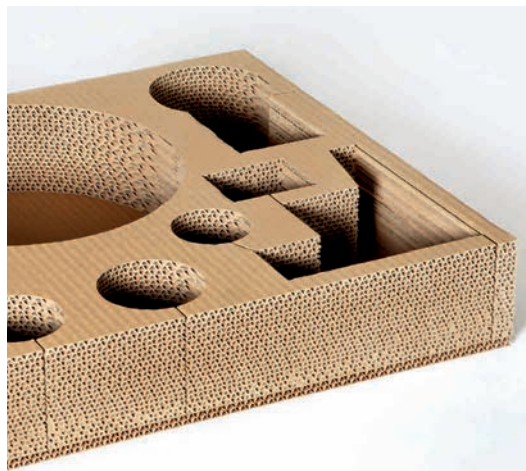
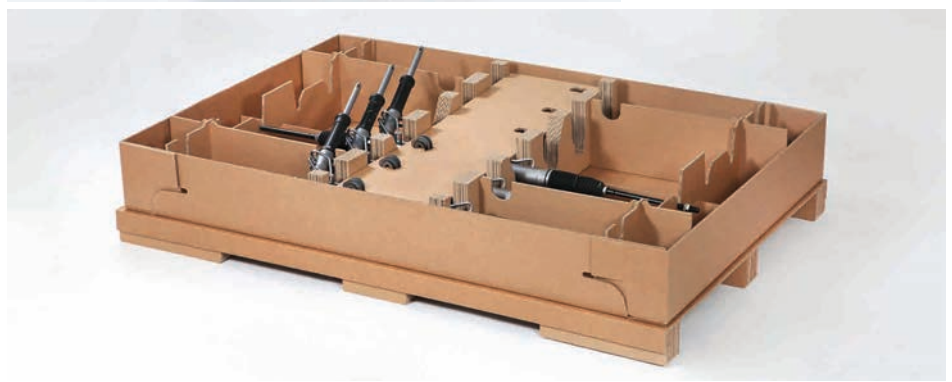
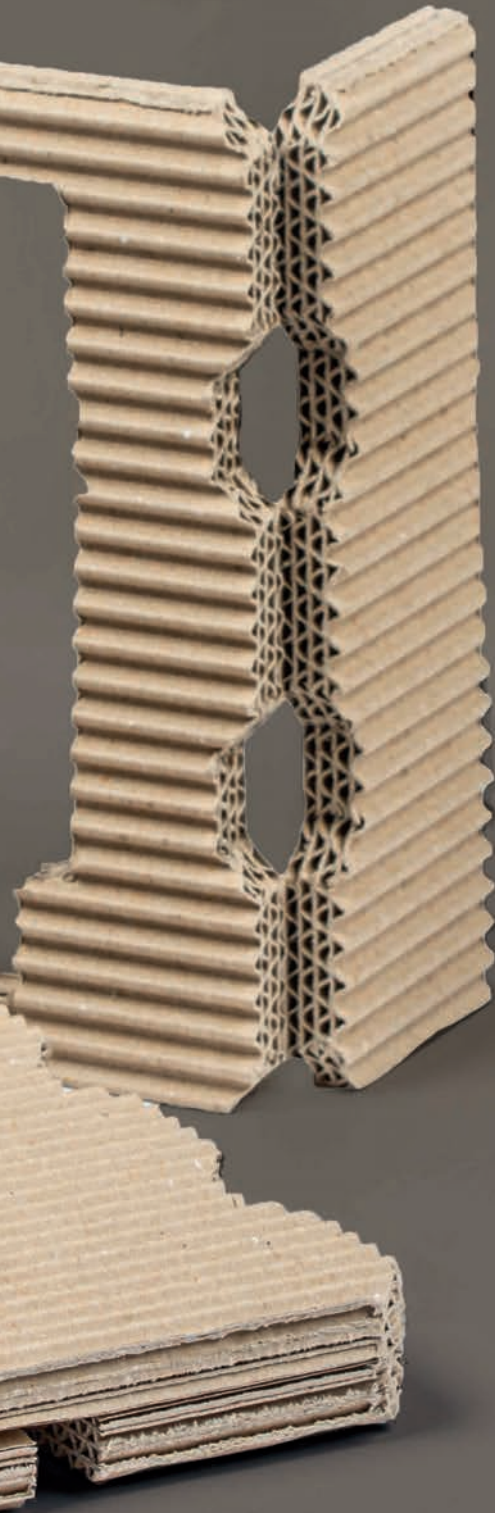
ripplex can be used to create complex, stable and dimensionally accurate shapes that are load-bearing and resilient.

Learn more on
www.de-pack.de



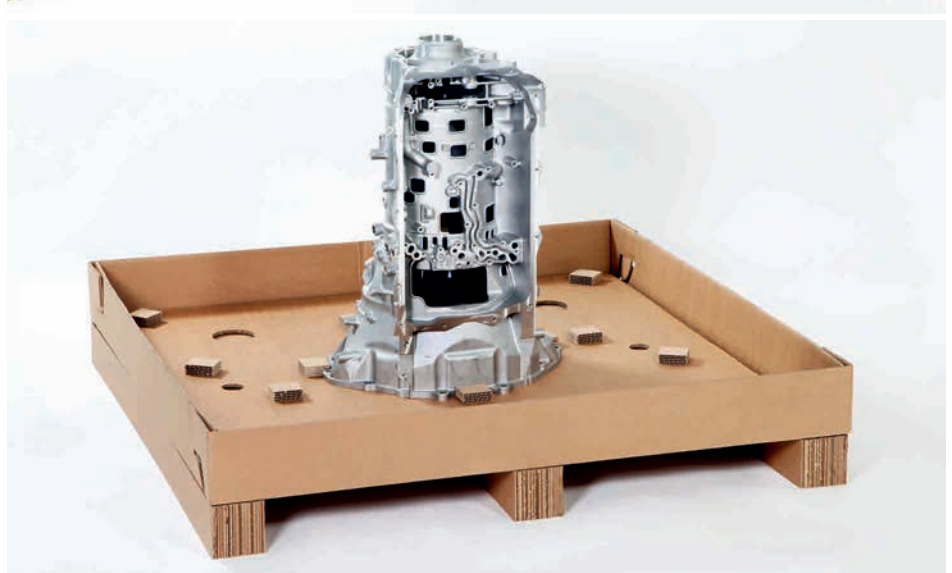
ripplex is created by laminating several layers of corrugated cardboard together and then cutting them to the desired shape. The unique stability of the vertical and horizontal shafts in the corrugated cardboard make for a highly reliable and stable packaging form.

We offer **ripplex** packaging because a fragile product needs reliable protection through the entire transportation process. The cutting process is tailor made to the specific shape and scale of your product, including desired cutouts or nesting. The cutting process yields a high contour accuracy for your



product. It is also possible to create variable cutting depths for storage pockets, or perforations and indentations as required. The bolstering effect of this packaging is determined by using different ripple types, grades and wave heights. Customized for maximum safety of your product.

Another example of high-quality, very efficient inner packaging from recycled paper and without any tooling costs.





DE-PACK
The Packaging. The Solution.

Foam Packaging

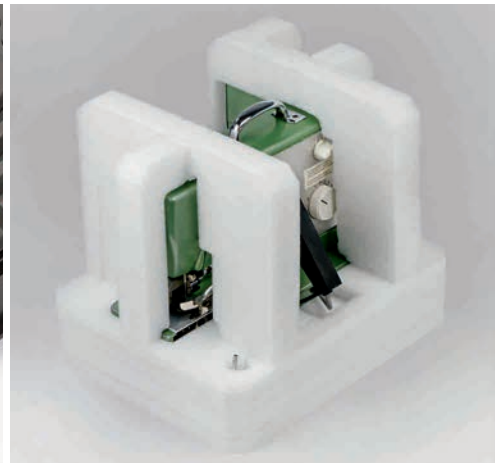
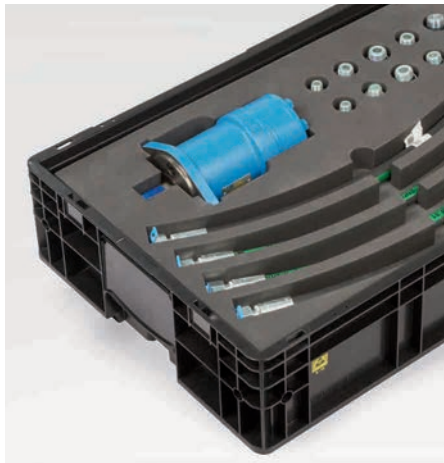
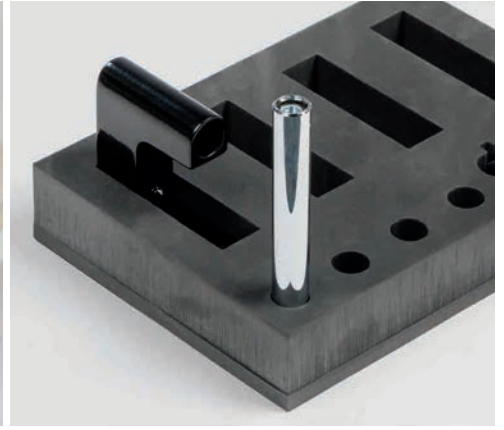
Foam packaging we know and understand!

We design durable foam packaging that optimizes the protection and transportation of your products; precisely made according to customer specifications.

Learn more on
www.de-pack.de



We process foam by waterjet cutting, punching, contour cutting, milling and other manufacturing processes to make tailored, volume-optimized, secure transport packaging for sensitive goods. We produce excellent foam packaging made of polyethylene foam (PE foam), polyurethane foam (PU foam) or polystyrene foam (PS foam) or Styrofoam®, which optimally protects packaged goods against impacts, vibration, friction, scratches and electrostatic charges (ESD protection).



DE-PACK offers tailor-made, customized foam packaging for all types of packaged goods (single or multiple use) providing the best possible transport protection.

We manufacture the highest quality load carriers, trays, device packaging, lateral bolsters, bubble cartons, die-cut and contoured parts and many more from a wide range of foams.





DE-PACK
The Packaging. The Solution.

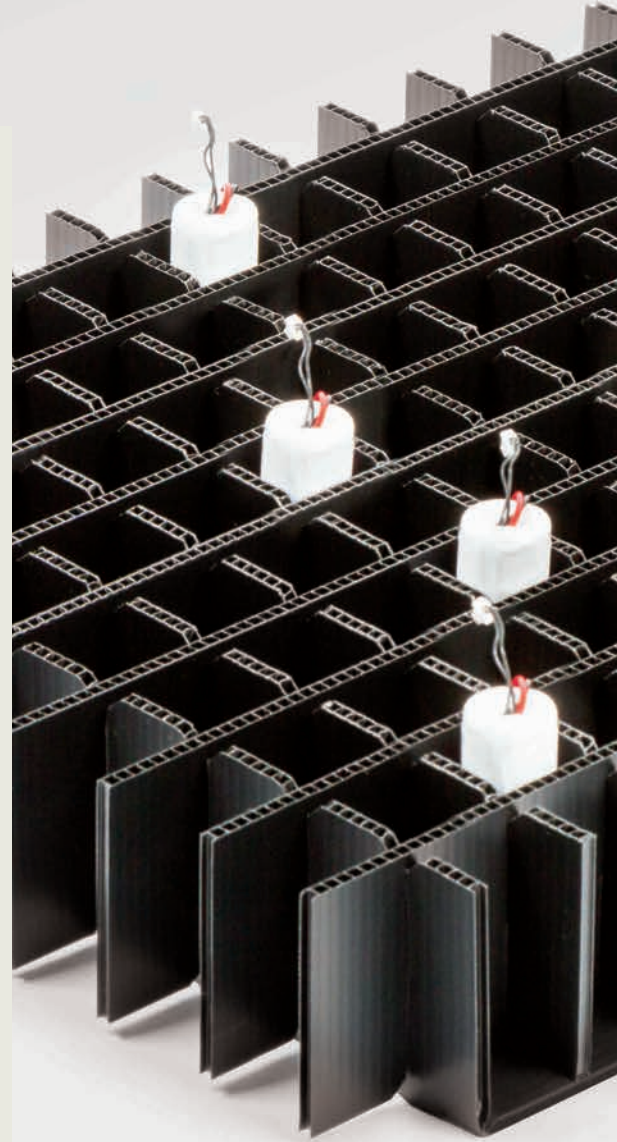
Twin-Wall Sheets Packaging

Ultra-lightweight twin-wall sheets packaging (HKP) provide high rigidity and stability.

Learn more on
www.de-pack.de

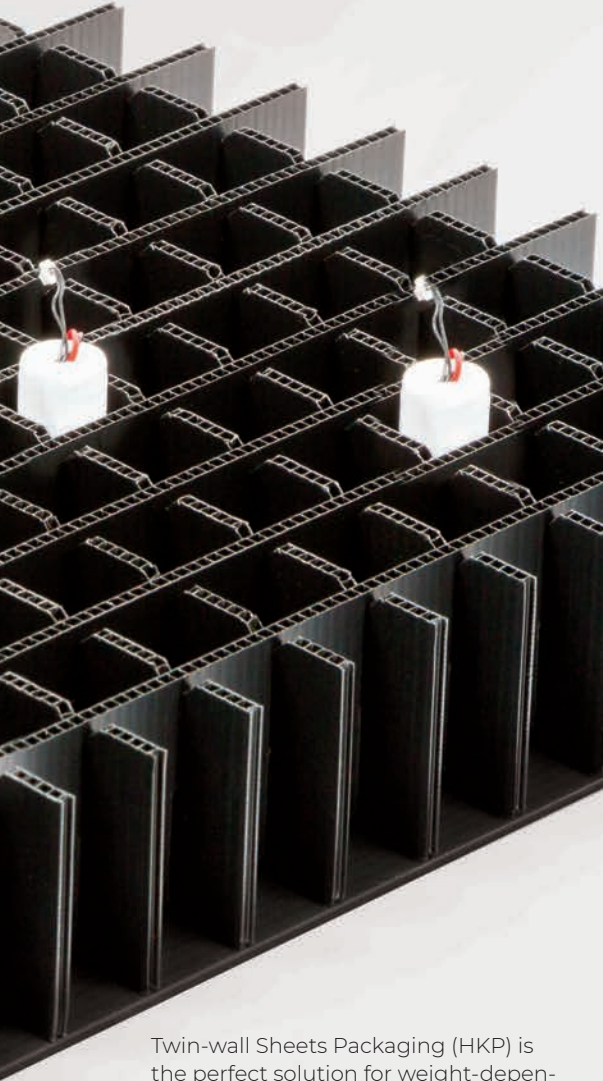


PREMIUM PRODUCTS
by DE-PACK



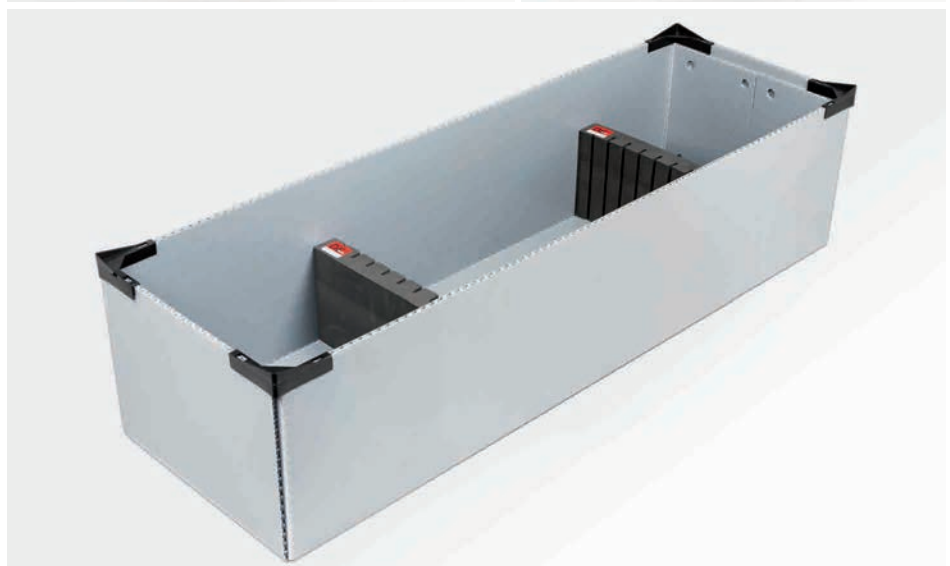
Versatile ideas and the resulting developments always meet the quality requirements of our satisfied customers.

We design and supply innovative twin-wall sheet packaging specifically for your products.



Twin-wall Sheets Packaging (HKP) is the perfect solution for weight-dependent packaging, transport protection, and secure shipping of products of different sizes. The lightweight Polypropylene material (PP) is remarkably resistant to harmful influences including moisture, acids, salts, aqueous solutions and alkalis.

We offer customized contoured high-quality solutions in various designs, regardless of the industry. Containers, load carriers, folding boxes or work-piece carriers, large or small, with or without compartments are all packaging alternatives that are highly resilient and designed for multi-use. HKP packaging is also environmentally friendly, as polypropylene is reusable and recyclable.





DE-PACK
The Packaging. The Solution.

Thermoformed Packaging

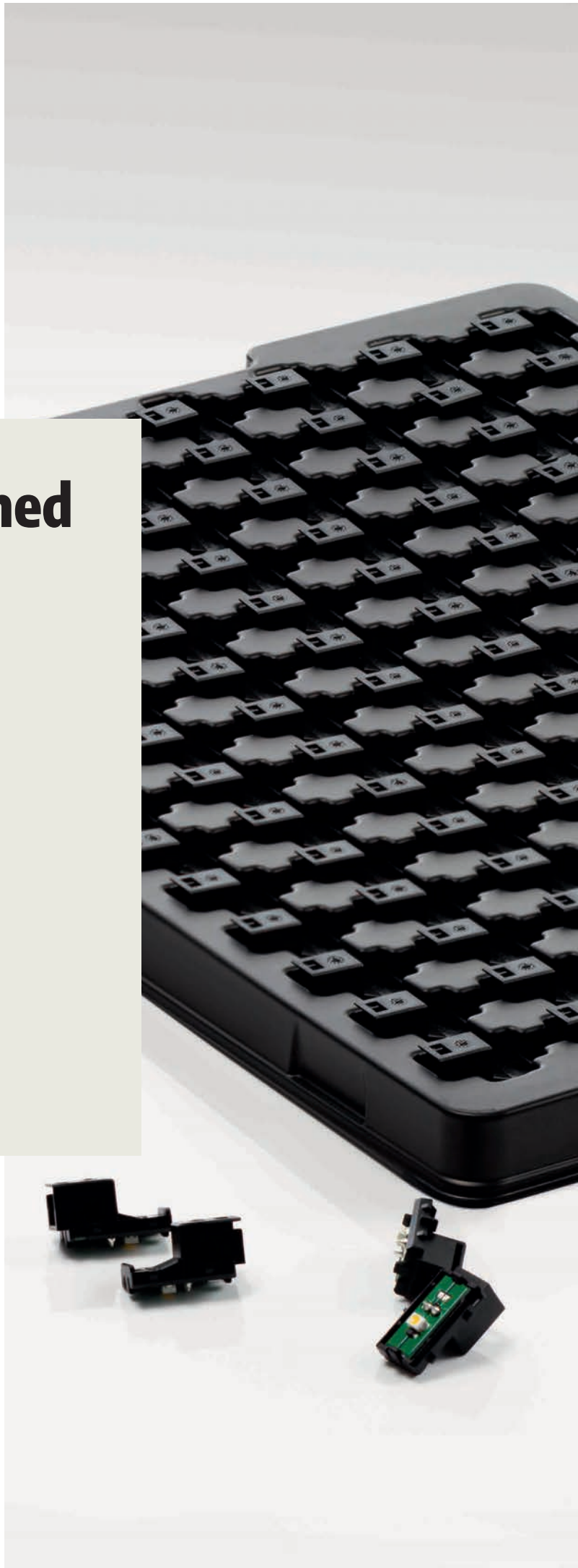
We develop thermoformed plastic packaging using CAD or rapid prototyping process for the quick production of designed components.

We guarantee packaging diversity through efficient thermoformed or vacuum-thermoformed plastics.

Learn more on
www.de-pack.de



PREMIUM PRODUCTS
by G&S



Our deep-drawn trays or load carriers are a favorite in the automotive sector for product transportation between suppliers and manufacturers. Thermoformed packaging can be precisely tailored to fit standardized products such as stamped parts, injection-molded parts, cold-pressed parts and precision parts.

The thermoformed packaging is designed so that it can be filled automatically on conveyor belts and allow easy removal of the components stored in them. This guarantees ideal utilization of transport capacities and considerably improves the logistics processes.



We also offer the highest quality products used in transporting and packaging of medical industry products for example: medical instruments, devices, ampoules, syringes, sterile containers, boxes, and much more.

We develop efficient disposable and reusable, product specific packaging for the electronics industry. Our products include thermoformed inserts/bolsters, parts carriers, trays and specifically contoured packaging, all equipped with ESD protective measures. We comply with all prerequisites for the transport of electronic components such as printed circuit boards and sensors, relays or sensitive capacitors.

Generally speaking, due to its robust design and excellent protective qualities, thermoformed packaging guarantees impact-proof and damage-free transport of products every time!





DE-PACK
The Packaging. The Solution.

Particle foam Packaging

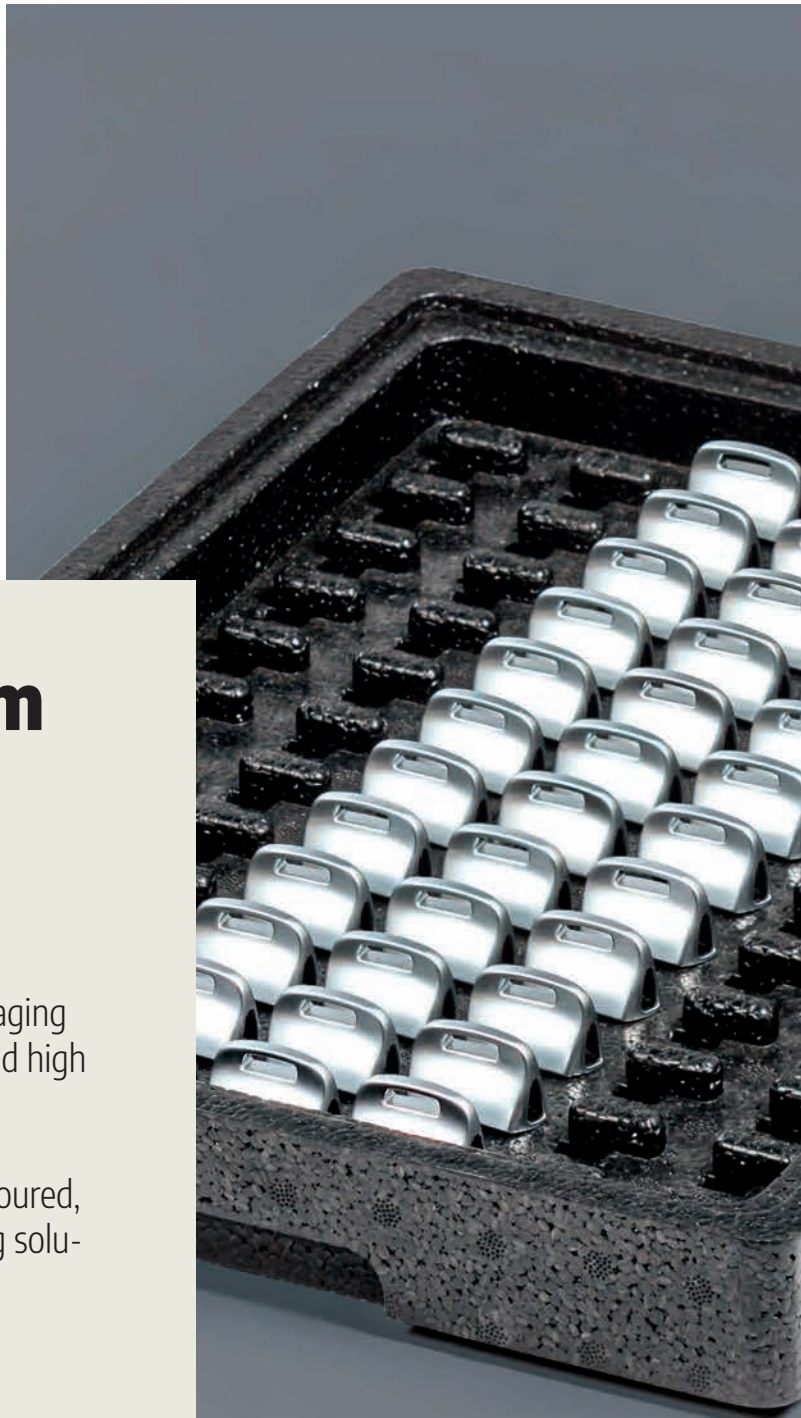
Contoured particle foam packaging excels in energy absorption and high temperature resistance.

Safeguard products with contoured, vibration-absorbing packaging solutions.

Learn more on
www.de-pack.de



PREMIUM PRODUCTS
by DE-PACK

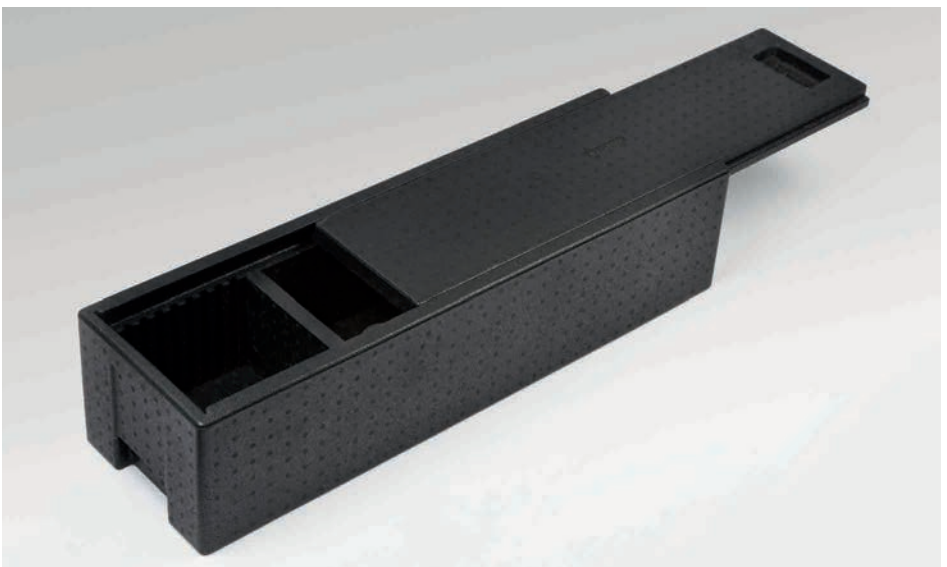
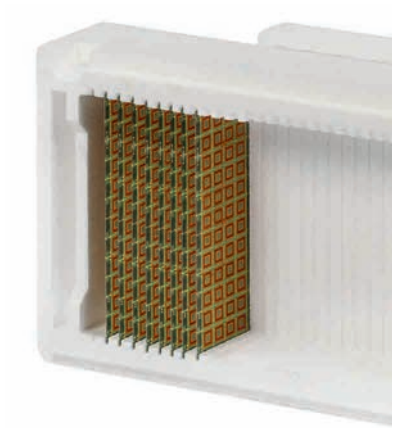


The outstanding mechanical and thermal properties of particle foams, combined with their low weight and flexibility in contouring, make them the perfect means of transport.



We design moldings from expandable polystyrene (EPS) or Styrofoam®, expandable polypropylene (EPP), expandable polyethylene (EPE) or expandable CoPo (EPS with EPE components). We create foamed lateral bolsters, contoured packaging, molded packaging, intermediate layers, device packaging and many more products, which are proven as excellent transport means with great shock absorption and energy absorption characteristics.

Many industries (automotive, machinery, plant engineering, etc.) take advantage of these characteristics and use our dimensionally stable particle foam packaging efficiently. These products are a must for packaging automotive parts used by automotive assembly groups; or when load carriers or parts carriers are required to guarantee rapid access to uniform packaged goods such as when precision parts and turned parts are part of the assembly process on conveyor belts.





DE-PACK
The Packaging. The Solution.

The Packaging. The Solution.



With over 40 years of experience, we lead the packaging industry in our tireless pursuit of progress and innovation.

Learn more on
www.de-pack.de

The result is our superior transport-safe, volume-optimized and cost-effective packaging solutions for our customers. We are driven by our constant, focused and limitless passion for our work, along with many years of experience and know-how. We not only offer industry standards, but also develop project-specific packaging that protects your products safely and securely.

Core competence, market-oriented developments, state-of-the-art techniques and optimally thought-out customer solutions form the foundation of our company's success.

DE-PACK's goal is to provide companies in the logistics, storage and transport sector as well as manufacturing companies in industry and trade, with customized high-quality packaging solutions that are as sustainable, environmentally friendly and as economical as possible.

DE-PACK is a supplier of innovative packaging systems for a wide range of industries. That is why we always demand a high level of quality from ourselves and our products while specifically addressing the needs and wishes of our customers.

Thanks to a wide range of materials as well as a wide variety of manufacturing processes, we are able to guarantee the best possible packaging tailored to your logistical process. Regardless of whether you are planning to launch a new product or replace existing packaging, we will work with you to find the best solution!

Once we have gathered all your requirements and specifications, we use state-of-the-art CAD technology to design your packaging solution. The product/process specific design is then turned into a sample package that is ready for testing. If desired, drop tests can be carried out and documented in accordance with your specified guidelines, with or without G-value testing. After successfully passing the drop test, the desired quantity of your packaging is produced.

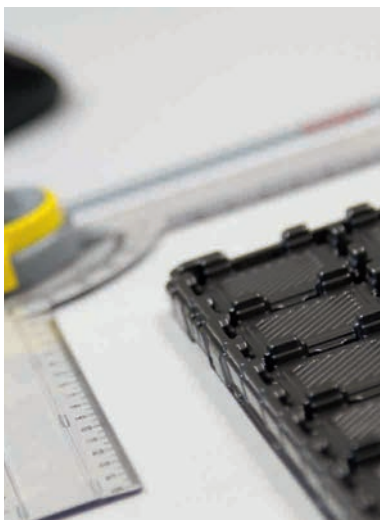
Our customers have specific requirements for packaging. We then use these as the basis for packaging development. For many years, high-quality packaging solutions from DE-PACK have been used successfully in a wide range of industries.

As packaging specialists, we develop and sell well thought-out packaging solutions. With the help of our development department and test laboratory, we use our experience and know-how to design safe "casings" made of foam, cardboard or plastic for your products.

BRANCHES

Industry examples at a glance:

- + Automotive industry
- + Drive and motor technology
- + Electrical and sanitary
- + Electronics
- + Spare parts
- + Aerospace
- + Mechanical engineering
- + Medicine and medical technology
- + Measurement and control technology
- + Furniture
- + Consumer electronics and Multimedia devices



INNOVATIVE PACKAGING DEVELOPMENT

Innovative packaging solutions are created through a synthesis of technical know-how and craftsmanship. We only employ packaging professionals with industry experience who work at modern CAD workstations and contribute their knowledge to packaging development. After all, developing packaging on the computer means immense time and cost savings for our customers, because initial testing is done in a virtual environment. Once the virtual tests are successful, an actual sample is produced and undergoes real-world testing.

STANDARDIZED PACKAGING DEVELOPMENT

We advise you in the best possible way about laws and regulations for packaging of all kinds as well as compliance with all currently applicable standards.

We work with you in every phase of the development and production process to guarantee that we deliver a smart and innovative packaging solution tailored to your needs. Your satisfaction is always our goal.

You can rely on our many years of experience and know-how. We have practical, economic and ecological solutions for all your packaging needs and can even de-

velop solutions to satisfy your most complex requirements.

Our in-house patents and utility models as well as the extensive experience of our packaging specialists are at your full disposal.

VALIDATED QUALITY AS END PRODUCT OUR PACKAGING DEVELOPMENT

With DE-PACK you have a partner at your side who will take care of your requirements!

Talk to us about which products you need to pack and deliver so that we can develop customized packaging to meet all your requirements. Your packaging project will then go through various processes, culminating in a packaging solution that provides optimum protection and is as ecologically and economically efficient as possible.

Do you have a premium product that needs a superiorly designed packaging? No problem - we will fashion the appropriate look for you with modern and creative packaging sleeves. In the field of packaging, we have been recognized with the *iF DESIGN AWARD*, the *German Design Award* and the *WORDLSTAR*.



Outstanding Premium packaging in a class of its own

We pay great attention to detail, as we design and develop premium packaging products which successfully showcase your products. They not only consist of an appealing design but also captivate your audience with haptic materials and ergonomic handling. DE-PACK was awarded an *iF Design Award* and also the *German Design Award* for our outstanding design qualities



**GERMAN
DESIGN
AWARD
SPECIAL
2019**



**DESIGN
AWARD
2018**



Sustainability at DE-PACK

An important part of our corporate philosophy is the preservation and care of our environment. We focus on the use of natural biodegradable materials. We also pay attention to intelligent packaging designs with minimal use of materials and guaranteed product protection. The selection of materials, and the reusable qualities of our packaging protects our environment and contributes to the ecological handling of our resources. Through the consistent use of recyclable materials and ecological

raw materials from FSC®-certified forests, as found in reinpapier®, we make a greater contribution to the environment. Raw materials are used and reused in a cycle without diminishing packaging protection.

Sustainable use of our environment means acting responsibly. DE-PACK is totally committed to take on this responsibility.

ISO-CERTIFIED

Good Quality Management (QM) promotes long-term customer loyalty, permanently securing a larger market share, and efficient and effective work.

Our QM ensures organizational measures that serve to improve process quality, our services and our superior packaging products. For us, quality management is a core management task.

The core of our quality management lies in the regular refinement and optimization of our internal communication structures, our professional solution strategies, the preservation and enhancement of customer satisfaction and, of course, our focus on environmental protection and the related environmental management.

We are certified according to:
EN ISO 9001:2015 a. ISO 14001:2015.

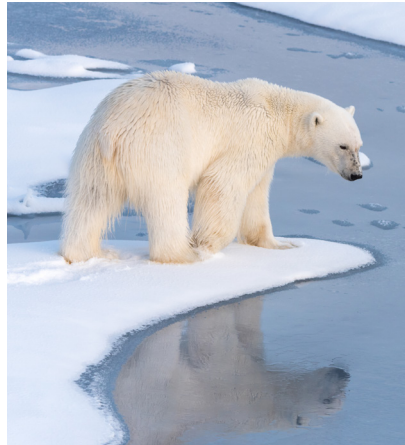




Climate neutral packaging

The term „climate neutral“ means first of all that the use of products and services does not unnecessarily increase the amount of climate-damaging CO₂ gases in the atmosphere. This means minimising the climate-damaging effects of emissions in production processes. This is an important step towards the all-important holistic climate protection.

The greenhouse gas concentration is almost the same everywhere on earth, because greenhouse gases like CO₂ are evenly distributed in the atmosphere. Consequently, it is irrelevant where on earth polluting emissions are caused or avoided. However, actions and processes can still be made climate neutral through so-called climate compensa-



tion if greenhouse gas releases were unavoidable during their implementation. This means that they can be offset by climate protection measures and climate projects at another location.

CRITERIA FULFILMENT?

In order to achieve climate neutrality, all climate protection measures that reduce the carbon footprint of consumed goods or services to zero are suitable.

HOW ARE CLIMATE-NEUTRAL PACKAGING?

Climate-neutral packaging is created in three steps:

1. determination of the CO₂ emissions of the packaging product
2. CO₂ compensation through support of international climate protection projects
3. transparent process presentation

If you want to run a project in a climate-neutral way, you should first fully exploit existing savings potential. Only then does it make sense to offset the unavoidable CO₂ emissions through climate protection projects.

As a rule, the path leads through three stages:

Analyse / Reduce / Compensate

Help make your environmental contribution to global climate protection by using climate-neutral packaging and support proven climate protection projects, most of which are implemented in emerging and developing countries.





DE-PACK GmbH & Co. KG
HEINRICH-HERTZ-STR. 8
78052 VILLINGEN-SCHWENNINGEN

T +49 (0) 77 21/944 66 – 70

INFO@DE-PACK.DE
WWW.DE-PACK.DE

