



**DREIV**  
VERPACKUNG

# Environmentally friendly shipping packaging for e-commerce, trade and industry

High-quality shipping packaging made of solid and corrugated board direct from the manufacturer - for over 40 years

Product catalogue 2023/2024

made in Germany



**WORLDSTAR  
WINNER 2023**



**LOGISTICS &  
MATERIAL FLOW  
WINNER  
2022**

# This is what our customers say about DREI V

"With DREI V, packaging has never been a problem. A true winner for us! Shipping our spare parts is considerably more efficient thanks to DREI V packaging. The packing procedure and the return of non-required material run so smoothly that we want to develop this pleasant cooperation further. We are curious to see which innovative packaging solutions DREI V GmbH will surprise us with in the future."

Dieter Gerke, Head of Centre ET Accessories  
Viessmann Werke Allendorf GmbH





"DREI V GmbH provided significant support during the start-up phase with their technical know-how and first-class advice. The packaging specialists worked with our team to formulate the needs and requirements that we set for shipping products and implemented these into the perfect solution, right down to the smallest detail."

Martin Arning, Managing Director  
Brotliebning Besser Backen GmbH

# Innovative shipping products at

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A selection of postage-optimised DREI V mailers can be found on Page 40.

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A selection of postage-optimised DREI V shipping boxes can be found on Page 49.

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A selection of postage-optimised DREI V die-cut/calendar packaging can be found on Page 72.

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# The DREI V success story

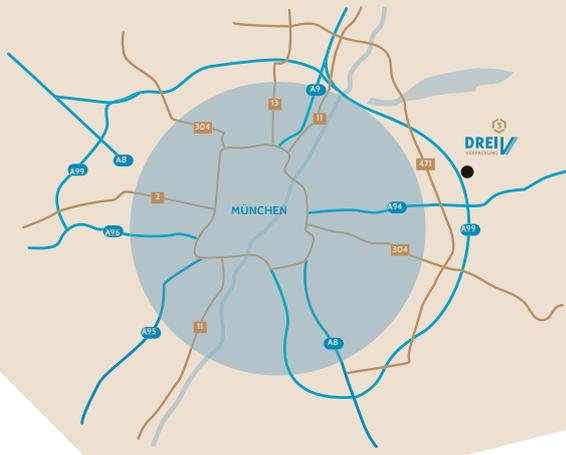
Do you know the principle that has shaped our business activities since DREI V GmbH was founded in 1982? We never settle for the second-best solution. For over 40 years, this has made us one of Europe's leading developers and manufacturers of innovative, high-quality corrugated board packaging with self-adhesive closure. We are proud of our Bavarian roots. With our company situated to the east of Munich (Kirchheim-Heimstetten), we take great pleasure in being able to contribute to shaping the success story of this economic region. Anticipating the ideas for tomorrow's shipping solutions for our customers at an early stage is our

driving force and a qualitative benchmark in the development of new products. With a whole range of patents, such as the anti-theft closure and other efficiency measures, we offer our customers a high degree of innovation at fair prices. With our customised shipping packing, additional filling material or adhesive tape is often unnecessary. In the meantime, more than 1.3 billion packages with self-adhesive closures have been produced by our high-performance machines in Kirchheim-Heimstetten, which enable us to offer our customers optimum packaging solutions.

**"The second-best solution is no alternative to optimal shipping products."**

Hans Reinhart  
Owner DREI V GmbH





DREI V – Bavarian roots, products made in Germany and in-house, to the east of Munich, Kirchheim-Heimstetten Industrial Estate.

# Convincing quality and measurable efficiency

Our shipping packages are always characterised by particularly cost-effective and environmentally friendly solutions that can be measured not only in terms of perfect functionality, but also in efficient handling: packed quickly, sealed quickly, sent securely. A quality concept that has already received several nominations and prizes for the German Packaging Award from the German Packaging Institute (DVI). The use of high-quality materials optimally adapted to the packaging design and its intended use, as well as maximum comfort in handling, are essential features of our products. Even if we are "only" talking about packaging made of solid or corrugated board: **- we want to impress everyone holding a DREI V package in their hands.**

Our DREI V service portfolio covers the entire process from development through realisation to production with maximum customer orientation. This even goes as far as us producing and optimising some of our own high performance machinery for the manufacturing of our shipping products. In this way, our angle gluing machines are able to benefit from innovative technology and achieve new dimensions in speed and precision. Highest efficiency means that each individual product must have the following characteristics: fast opening and filling, easy closure, secure dispatch and user-friendly opening!

**DREI V: Joy that arrives safely.**



# Mission statement and core values

DREI V has been committed to developing and producing tailored shipping products for over 40 years. The focus is always on simplicity, safety and environmental compatibility – true to the motto: **packaging done right.**

**THE 3 CORE VALUES OF OUR COMPANY GOVERN THE ACTIVITIES OF ALL EMPLOYEES:**

- 1 Inspire through competency**
- 2 Innovation as a driver for success**
- 3 Yes to responsibility**

## Competence instead of compromise

At DREI V, we always think in terms of solutions and can draw on decades of experience in the field of shipping products. Numerous patents pay testament to our capability: **Development, production and logistics - all from one source.**

**With DREI V, you rely on full-service production with the highest quality standards.**

From initial concept to production, our product developers and process engineers work closely together. The functionality of the product and the guarantee of a consistently high processing quality are at the forefront of packaging development and production. This includes the entire manufacturing process from printing, stamping and gluing to the application of films using the latest manufacturing technology. Every new prototype is tested in our own drop-test studio according to the stringent criteria of the DREI V testing standard with high-speed analysis of G-values. The new packaging only goes into production once it has passed the individual test sequences with flying colours.

**However extensive your wishes may be - we have the skills, even in logistics.**

Our storage capacity includes 6,000 pallets of finished products. We can provide you with packaging from our standard range within 24 to 48 hours and also offer you a comprehensive and fast service for shipping individualised products. After all, we want to impress you with our competence in every respect.



The DREI V drop-test studio with high-speed analysis



**DID YOU KNOW ...**

... that DREI V is the inventor of self-adhesive shipping packaging?

# Innovation as a driver for success

**Innovative shipping products are the result of new ideas and flexible thinking processes.** We are already developing tomorrow's intelligent shipping solutions today, because the market is undergoing constant change. We are meeting this challenge with measurable product advantages.

The primary focus of all packaging solutions is the best possible protection of the packaged goods and the safe shipment of various products. For this purpose, we work closely with renowned research institutions and use the latest technologies.

The development of an optimal, tailored solution for the customer stands at the foreground of each of our new developments. DREI V packaging concepts are always based on a protective concept and guarantee maximum comfort for quick and easy handling. This demonstrates how the pursuit of innovation is the engine of our activity.



# With responsibility and distinction

As a responsible company, DREI V GmbH has been making a clear commitment to sustainability for many years. What does this mean for a well-established company in Bavaria, which for over 40 years has been developing innovative shipping packaging solutions made of solid and corrugated board?

“We want to make our ecological footprint as slim as possible and thus even more environmentally friendly”, explains CEO Hans Reinhart. To achieve this ambitious goal, DREI V is pursuing several paths in parallel:



With its own international recycling logo DREI V GmbH wants to encourage its customers to put the valuable raw material into the recycling process and not in the household waste.



The eco-signet of the Verband der Wellpappen- Industrie e.V. identifies corrugated cardboard packaging as an environmentally compatible recycled product.



A RESY logo on paper or corrugated board packaging guarantees the complete disposal and material recycling.



The environmental management system standard ISO 14001. (\*Source: Federal Environment Agency [www.umweltbundesamt.de](http://www.umweltbundesamt.de))



FSC - the logo for responsible forest management. (\*Source: FSC®: [www.fsc-deutschland.de](http://www.fsc-deutschland.de))



DREI V GmbH is a member of the Bavarian Environment and Climate Pact of Bavaria. (\*Source: Bavarian Ministry for the Environment and Consumer Protection: [www.stmuv.bayern.de](http://www.stmuv.bayern.de))



**DID YOU KNOW ...**  
... that DREI V sends 8 tonnes of waste paper for recycling every month?

# Concrete paths to sustainability

Sustainability is undoubtedly one of the big buzzwords of the 21st century. In concrete terms, this means that our ecological, economic and socio-cultural resources on earth should only be used and consumed to the extent that they are still available to future generations in the same quantity and quality.

The corporate goal of sustainability has its place alongside other values in the brand essence of DREI V GmbH and, to be honest, represents a new challenge for our team every day. Because in addition to environmental issues, social components and the type of corporate governance also play an important role for us. Experts also speak here of ESG criteria (Environmental, Social and Corporate Governance), which are to be taken into account. The ecological footprint of a company is a very good indicator of relevant key figures.

[Here you can see an example of which factors determine the ecological footprint of DREI V GmbH, among others.](#)

In the meantime, private individuals and company managers in almost all sectors know that it will not work without nature today and in the future. The environment and the economy are almost always in an ambivalent relationship with each other, because economic success requires raw materials from nature

and without intact nature, renewable raw materials, such as wood for our corrugated cardboard products, is in short supply. We at DREI V have therefore decided that we will follow up words with measurable actions that result in concrete projects. Here are a few examples:

## Beehives on the company premises

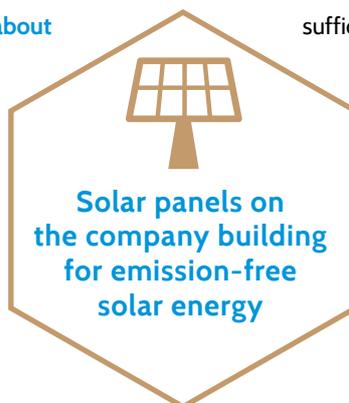
Since 2019, there have been a total of 6 beehives with lots of busy bees on the extensive company premises of DREI V GmbH in the east of Munich. We are not saving the world with this, but we are setting a visible sign against the threatening death of insects and bees. From the professional organisation of a bee colony, we can even gain valuable insights for our own management, be it the division of labour, the climate in the hive or the organisation and communication among each other. Honey bees have existed for over 40 million years and have been practising "agile management" ever since - a term that has recently also become "state of the art" in successful corporate management.



## Solar panels on the company building

**Keyword renewable energies: Everyone is talking about the energy turnaround, but we at DREI V have also decided to take concrete action here.**

That's why, for example, the flat roof of our company building with office and production site in Kirchheim-Heimstetten was completely equipped with modern solar collectors in 2011. With a total area of around 2,000 square metres, we generate around 93,000 kilowatt hours of emission-free solar electricity year after year. Admittedly, this amount of electricity is still far from



sufficient to fully operate our energy-intensive production facilities, but we see it as an important step towards sustainable business.

Of course, we also pay attention in production to ensuring that only as much energy as necessary is used and that large electricity consumers in the company are successively modernised or completely replaced. Since 2015, we at DREI V have been consistently pursuing our own sustainability strategy in the building and production area with a working group.



Solar panels on the company building in Kirchheim-Heimstetten.

### Some examples:

- In 2015, the entire company building was professionally insulated. This enables us to save around 10 per cent gas energy and significant amounts of CO<sub>2</sub> on heating costs every year.
- In 2016, our experts completely modernised the compressor technology for our own production machines, enabling us to achieve electricity savings of around 15 percent per year in the area of compressed air supply.
- In 2017 and 2018, the PLC control for controlling the drive motors was replaced on 2 gluing machines, so that there is now an annual electricity saving of approx. 15 percent per machine.
- A further 15 percent electricity can be saved annually since 2019 through the purchase of a new baler.

## Communication and fleet with modern technology

Since 2018, we have also been successfully working with our partners to optimise our fleet management. In 2020/2021, for example, the first company vehicles with diesel engines were replaced by more fuel-efficient hybrid vehicles. Of course, we are continuing along this path: that is why we have had three electric charging stations on our company premises since 2020, which can be used by our employees and our customers.

The forklifts used in our production halls offer additional savings potential: new vehicles in the forklift fleet, in which we are gradually investing, require around 10 per cent less energy. We are always open to new, innovative ideas and technologies when it comes to our vehicle fleet, because after all, there is nothing that can't be done just a little bit better.



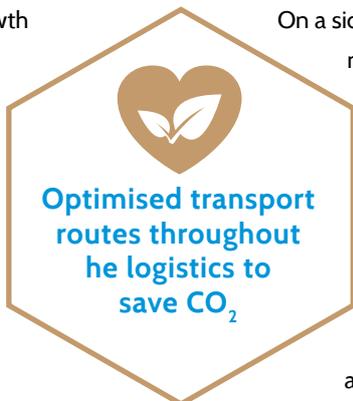
# Ecological ideas and alternatives

Much has been written and discussed about the "ecological footprint". It is always about the central question of how many resources nature has to provide us with for our respective lifestyles? Or to put it even more directly: How many earths do we need to live like this? Since 1970, mankind has been consuming more resources than the ecosystems can provide, especially the industrialised nations. So action must be taken and every step, no matter how small, counts.

As an innovative Bavarian manufacturer and distributor of corrugated board packaging, we focus our sustainability on various factors that we believe have great leverage for the environment: Renewable and recyclable raw materials, energy-efficient production processes, reduced-volume packaging solutions as well as single-material packaging and packaging without filling material. We have been following this path very consistently for years in order to keep the ecological footprint of DREI V GmbH as small as possible.

## Online trade in the focus of consumers

For years, online retailing has enjoyed great growth worldwide, as many consumers simply appreciate it when the goods ordered from a shop are delivered in a secure and environmentally friendly and environmentally friendly shipping packaging is delivered quickly and conveniently. According to industry experts, this trend will continue or even increase. In order for the respective packaged goods to arrive safely at the consumer, they need stable resource-saving packaging solutions that are, ideally, also completely recyclable.



On a side note: Whether you shop online or in brick-and-mortar stores has only a minor impact on possible greenhouse gas emissions as the Federal Environment Agency (UBA) Dessau-Roßlau found in the study "The Economization of Online Retailing". Accordingly, it could be more ecological to have a product delivered to your home than to drive a few kilometers to the shop in your own car. Better utilization of delivery vehicles and efficiently planned routes play a decisive role here. Overall, the parameters of ordering, shipping packaging, storage and distribution centers, transports to the target parcel center and transports on the last mile as well as any returns must be taken into account when calculating the life cycle assessment.

Broken and thinned wood is the most important raw material for the production of corrugated base paper.



## The raw material corrugated board and its environmental advantages



Products from the renewable raw material corrugated board with a convincing CO<sub>2</sub> balance

Corrugated board is a comparatively young invention that began its unstoppable triumphal march in the middle of the 19th century: in 1874, the American Oliver Long succeeded for the first time in gluing a corrugated paper web to a smooth paper. This was the first single-sided corrugated board. In 1882, the American Rober T. Thompson followed suit and received the first patent for double-sided corrugated board, which he produced in a mechanical corrugator. Since the 19th century, the corrugated packaging is growing rapidly as it is used worldwide as a versatile and ecological material. We at DREI V have relied on this special material for our high-quality shipping packaging since the company was founded in 1982.

According to the German E-Commerce and Distance Selling Trade Association, in 2022 around 3 out of 4 customers in Germany, and thus more than ever before, regularly ordered online within a month and had the goods delivered to their homes. In 2021, Germans already shopped for 54 parcels per capita and year.

**So when it comes to the ecological footprint and reducing CO<sub>2</sub> emissions in the mail order business, it is worth taking a closer look at two factors:**

- How can transport routes be optimised and routes efficiently planned?
- How much air is actually transported in the shipping packaging (keyword "volume reduction") because the packaging is far too large compared to the packaged goods or too much filling material is used?

**Our DREI V proposal for more sustainability:**

If the volume of the parcels could be reduced through more precise-fitting shipping packaging solutions and unnecessary filling material by a third or even half, it would be possible to save approx. 500,000 tonnes of CO<sub>2</sub> emissions annually in Germany alone. We at DREI V have the tailor-made products for this.

We see enormous potential here for sustainable business and active environmental protection. That's why we have developed DREI V packaging solutions that are precisely designed to generate as little volume as possible during shipping and in some cases completely eliminate unnecessary filling material. And, of course, the packaged goods, regardless of whether they are delicate or very sensitive, are transported safely to the recipient. With the innovative **ECOSNAP** paper retention packaging, the DREI V GmbH even won the German Packaging Award in the category Logistics and Material Flow in 2022 and the WorldStar in 2023.



# Interview with Hans Reinhart

## Owner and founder of DREI V GmbH

*In 2022, DREI V GmbH celebrated its 40th anniversary. What began almost four decades ago as a one-man business almost four decades ago is now a leading developer and manufacturer of innovative self-adhesive packaging – from simple mailers to smart retention packaging.*

**Mr Reinhart, in the meantime DREI V has produced over 1.3 billion shipping packages. When you founded your company, did you ever think that you would be the owner of such a successful company?**

**Hans Reinhart:** I never had the slightest inclination that my company would develop and manufacture innovative packaging. When I ventured into self-employment in 1982 with a so-called "letter shop", my actual business idea was merely to pack and send brochures, catalogues and advertising materials on behalf of the customer. But I soon realised that there was hardly any packaging for transport on the market which was cost-effective and easy-to-handle. As I like to fiddle around and try things out, I started to develop user-friendly packaging. Of course, the industry know-how which I had gained up to that point came in good use.

**What type of packaging did you develop and manufacture?**

**Hans Reinhart:** Just four years after the founding of DREI V GmbH, the first mailers and book packaging with self-adhesive technology were created. The integrated self-adhesive strip was, from the very start, a new, creative solution for the modern mail-order business, which perfectly adapts to its individual require-

ments – and has done so to this day.

**Why do you think the integrated self-adhesive strip has been so successful?**

**Hans Reinhart:** With this practical solution, I wanted to stay true to my maxim, which is now the corporate philosophy of DREI V GmbH: packed quickly, sealed quickly, sent securely. Thanks to the self-adhesive closure, our packaging can be closed quickly and professionally by the packer and, thanks to the tear-open aid, it is just as easy to open for the recipient.

**Thanks to e-commerce, unforeseen market opportunities have opened up in recent years. How did you take this development into account?**

**Hans Reinhart:** Yes, that's true. Due to the rapid development of the online mail order business, DREI V GmbH also grew equally quickly. In order to keep up with the challenges and the pace of the European mail order market, we enlarged the company premises step-by-step in 2004 and built the administrative and production site on the company premises at Weißenfelder Straße 4. In 2006, this location was once again too small, so we completely



**“My Porsche tractor shows me how fascinating sophisticated technology can be.”**

Hans Reinhart, Owner and Managing Partner of DREI V GmbH

took over the entire property.

**You have remained loyal to the Kirchheim-Heimstetten location, in a region where it is very difficult to find suitable workers. What measures do you take to counter the trend of a skilled-worker shortage in the Greater Munich area?**

**Hans Reinhart:** We have been very successful in training our own

staff with a high degree of industry know-how for many years. At present, five trainees are completing apprenticeships as packaging technologists, and one student is doing a dual degree in sales management. 40 years after the company was founded, our workforce has grown steadily to 100 permanent employees and 20 flexible employees for use at production peaks.

**The DREI V machine park has been continuously expanded over** 

Even when  
unpacking,  
company  
owner Hans  
Reinhart is a  
professional.



the years with a large number of systems for packaging production. A major milestone in the company's history was achieved in 1997, when you put the first self-built angle glueing machine into operation. Why were you involved in mechanical engineering?

**Hans Reinhart:** It's like the packaging I've developed myself: At that point, there was no suitable automation system which would have even come close to our individual requirements. With our in-house development, which achieved a new dimension in speed and precision through its innovative technology, we were able to fulfil our desire for 100% flexibility. Incidentally, almost all of our high-performance machines for the production of shipping products - apart from the flexographic printing and die-cut machines - are made in-house!

How can you guarantee that packaging produced by DREI V GmbH will survive the gruelling route of transport and at the same time protect the packaged goods from damage and wear?

**Hans Reinhart:** Since 2006, every shipping product has been tested in our own drop-test studio according to the stringent criteria of the DREI V testing standard - regardless of whether it's customised corrugated cardboard inserts or universal packaging. Only once a new shipping solution fulfils all the requirements of material quality, design stability and package handling is the green light given for it to go on production.

How do you come up with new packaging ideas?

**Hans Reinhart:** The best ideas often come to me while I am walking the dog. In order to make a raw idea into a product, I also like to take a pair of scissors and enjoy working for hours until the result is convincing. It can take three to six months to get from the initial idea to the finished product. Experimenting with packaging materials and developing tailor-made shipping solutions in order

to be able to respond to the individual requirements of our customers are both very important to me. For every new development and advancement, our team analyses the entire shipping process in close cooperation with the customer. The main focus is on new, fresh ideas and the implementation of flexible thought processes. Finally, a number of other patents

“At DREI V, we have a wonderful story to tell, deliver great products and live our values.”

Hans Reinhart

and industrial property rights have yet to follow those which already exist, such as the DREI V anti-theft security closure.

In your opinion, what makes DREI V so special compared to its competitors?

**Hans Reinhart:** DREI V is as unique as my own life story. We have an honest story to tell, we deliver excellent products and we live up to the values we all set ourselves. Our customers feel that themselves because of our quality, reliability and creativity. That makes us very strong and gives us confidence in the future of DREI V GmbH.

*Interview: Cathrin Kaminsky, Klaus Höfler*

# 5 big advantages of DREI V products



## Secure

All packaging products developed and produced by DREI V are tested according to the DREI V testing standard before series production. Only products that pass this test with flying colours go into production.



## Fast handling

Our products are designed with self-adhesive closures for fast and professional packing and shipping. Moreover, with the tear strip designed into the seal they are just as easy to open for the recipient.



## Innovative

Never settle for second best. Ever since the company was founded in 1982, this has been DREI V's daily motivation and aim.



## Low-cost

Postage-optimised packaging and the elimination for the need of further packaging materials help our customers to save on postage charges.



## Environmentally friendly

All our packaging is produced using environmentally friendly methods, and they can simply be disposed with the film part in waste paper recycling.



# The right products for each industry

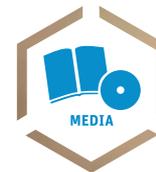
## Automotive

For sending automotive small parts, delicate components or assemblies, DREI V offers easy to handle packaging with a high degree of flexibility and security. Your product is safely packed and securely attached in a closed film pouch inside the die-cut packaging, or secured inside a single-part or multi-part fixation package developed specifically for your product, with a perfect fit.



## Media

From CD packaging to packaging for records and other audio media, DREI V media packaging guarantees the safe packing of various media formats for shipping. Electronic data media such as CDs and DVDs can be fixed securely and sent with extra peace of mind thanks to the security closure.



## Internet trade

Whether it's printed products, cosmetics or textiles – packaging developed especially for online shopping allows all kinds of items to be shipped quickly. Innovative product qualities such as the self-adhesive closure and the tear strip provide maximum ease when packing or returning items.



## Medical

The DREI V fixation packaging is well-suited to the shipping requirements of extremely sensitive, medical technology. Special film and membrane packaging with LDPE or PU films have been designed for these purposes, also ensuring great handling advantages in addition to extreme security.



## Electronics

Laptops and tablet PCs are secured in fixation packaging with shock-absorbing features and enhanced edge protection. Electronic small parts can be safely fixed with a non-slip, transparent film, which not only optimally secures them but also presents them well for the recipient.





# Our universal shipping products offer flexible formats

## The flexible SHIPPING PRODUCTS for various formats

Whether you are sending books, catalogues or bulky files – with DREI V shipping products, you get the right solution for any format. The high-quality, wrap-around shipping products with a protruding protective rim or all-round edge protection guarantee optimum security when sending your goods, as well as a high degree of flexibility when packing, thanks to the variable fill levels. The patented stabilisers, which provide for perfect comfort and rapid handling during packing, offer real added value.

- Patented stabilisers
- Flexible and secure for each format
- For books, catalogues or bulky files
- High-quality, wrap-around packaging
- Variable filling heights



**MULTIWELL**

**ORDNERPAC**

**GIGAFIX**

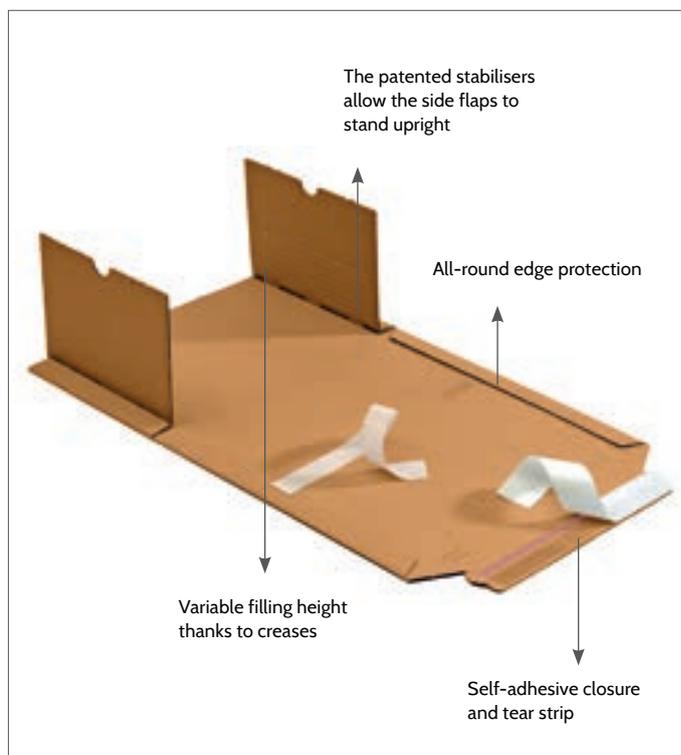
# Multiwell 1 Series

## In strong kraftliner quality



- Handling advantage through patented stabilisers
- The right solution for any format
- Shipment packaging with variable height
- Self-adhesive closure and tear strip
- Anti-theft security seal
- All-round edge protection
- Stable kraftliner quality

Please send us your enquiry for any prints, special sizes and special orders.



### ALL SIZES AT A GLANCE:

Item No.	Internal dimensions (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
MW152	217 x 155 x 10-50	25 / 2.400	73 / 196	120 x 80 x 175	no	1.31-B-21
MW154	245 x 165 x 20-70	25 / 2.400	89 / 235	120 x 83 x 175	yes	1.31-B-21
MW156	270 x 185 x 20-60	25 / 1.600	102 / 183	120 x 80 x 175	no	1.31-B-21
MW158	302 x 215 x 20-75	25 / 1.600	130 / 228	129 x 80 x 175	yes	1.31-B-21
MW162	325 x 250 x 20-75	25 / 1.200	155 / 206	120 x 80 x 175	no	1.31-B-21
MW164	330 x 270 x 20-75	25 / 1.200	167 / 220	120 x 80 x 175	no	1.31-B-21
MW165	320 x 320 x 10-80	25 / 1.200	192 / 250	120 x 87 x 175	yes	1.31-B-21
MW168	455 x 320 x 20-55	25 / 800	242 / 214	120 x 82 x 175	yes	1.31-B-21

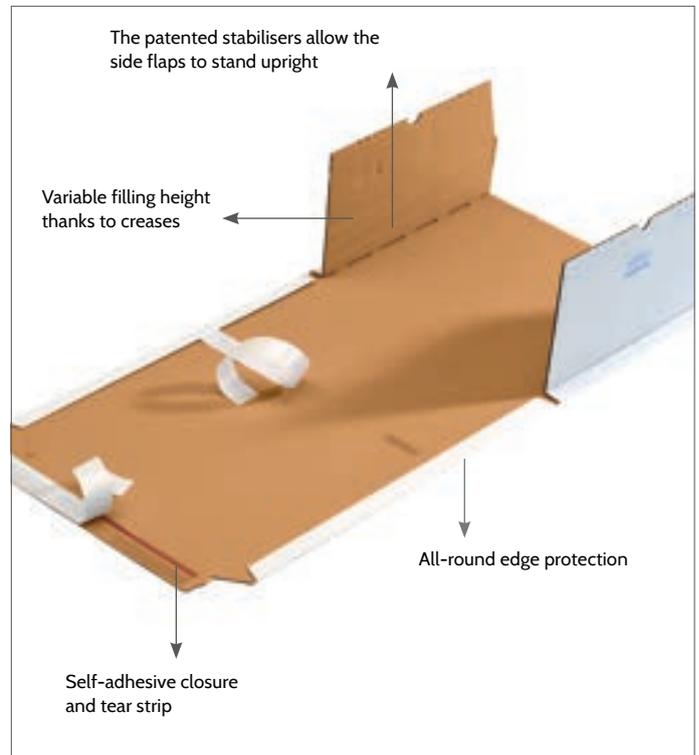
# Multiwell 2 Series

## The compact class in elegant white



- Handling advantage through patented stabilisers
- The right solution for any format
- Shipment packaging with variable height
- Self-adhesive closure and tear strip
- Anti-theft security seal
- All-round edge protection
- Stable kraftliner quality

Please send us your enquiry for any prints, special sizes and special orders.



### ALL SIZES AT A GLANCE:

Item No.	Internal dimensions (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
MW52	217 x 155 x 10-50	25 / 2.400	70 / 187	120 x 80 x 175	no	1.30-B-31
MW54	245 x 165 x 20-70	25 / 2.400	85 / 223	120 x 83 x 175	yes	1.30-B-31
MW56	270 x 185 x 20-60	25 / 1.600	99 / 179	120 x 80 x 175	no	1.30-B-31
MW58	302 x 215 x 20-75	25 / 1.600	125 / 220	129 x 80 x 175	yes	1.30-B-31
MW62	325 x 250 x 20-75	25 / 1.200	148 / 198	120 x 80 x 175	no	1.30-B-31
MW64	330 x 270 x 20-75	25 / 1.200	157 / 208	120 x 80 x 175	no	1.30-B-31
MW67	370 x 290 x 20-75	25 / 1.200	183 / 239	123 x 84 x 175	yes	1.30-B-31
MW68	455 x 320 x 20-55	25 / 800	228 / 202	120 x 82 x 175	yes	1.30-B-31

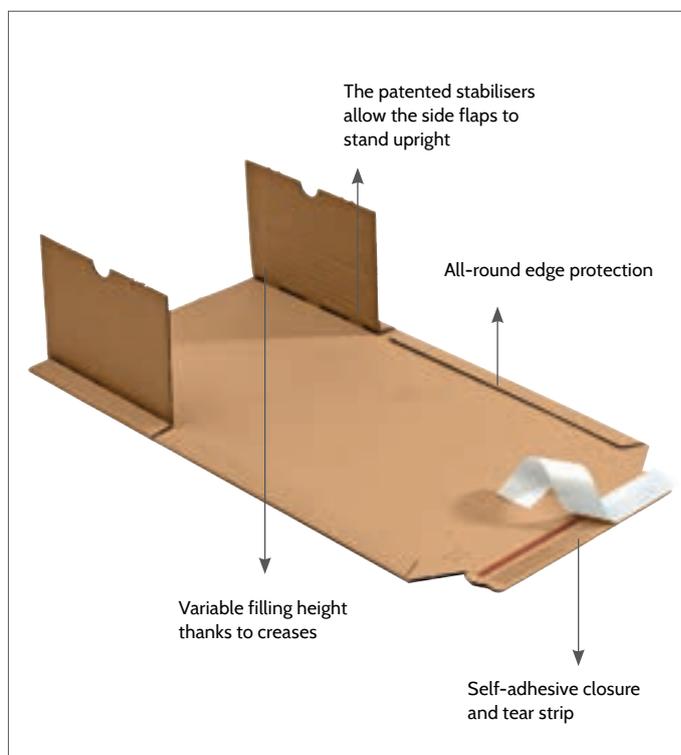
# Multiwell 3 Series

## With patented stabilisers



- Handling advantage through patented stabilisers
- The right solution for any format
- Shipment packaging with variable height
- Self-adhesive closure and tear strip
- All-round edge protection
- Stable testliner quality

Please send us your enquiry for any prints, special sizes and special orders.



### ALL SIZES AT A GLANCE:

Item No.	Internal dimensions (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
MW351E	148 x 126 x 10-40	25 / 7.200	37 / 283	120 x 80 x 153	no	1.02-E-20
MW352	217 x 155 x 10-50	25 / 2.400	62 / 169	120 x 80 x 156	no	1.02-B-20
MW352E	218 x 155 x 10-50	25 / 4.200	60 / 273	120 x 80 x 176	no	1.02-E-20
MW354	245 x 165 x 20-70	25 / 2.400	81 / 215	120 x 83 x 156	yes	1.02-B-20
MW354E	246 x 165 x 20-70	25 / 4.200	73 / 325	120 x 83 x 176	yes	1.02-E-20
MW356	270 x 185 x 20-60	25 / 1.600	93 / 168	120 x 80 x 156	no	1.02-B-20
MW356E	271 x 185 x 20-60	25 / 2.800	82 / 249	120 x 80 x 176	no	1.02-E-20
MW358	302 x 215 x 20-75	25 / 1.600	116 / 206	129 x 80 x 156	yes	1.02-B-20
MW358E	303 x 215 x 20-75	25 / 2.800	104 / 312	129 x 80 x 176	yes	1.02-E-20
MW362	325 x 250 x 20-75	25 / 1.200	127 / 172	120 x 80 x 156	no	1.02-B-20
MW364	330 x 270 x 20-75	25 / 1.200	151 / 201	120 x 80 x 156	no	1.02-B-20
MW367	370 x 290 x 20-75	25 / 1.200	173 / 228	121 x 83 x 156	yes	1.02-B-20
MW368	455 x 320 x 20-55	25 / 800	201 / 181	120 x 82 x 156	yes	1.02-B-20
MW372	620 x 420 x 20 -55	10 / 400	374 / 170	120 x 80 x 181	yes	1.20-B-20

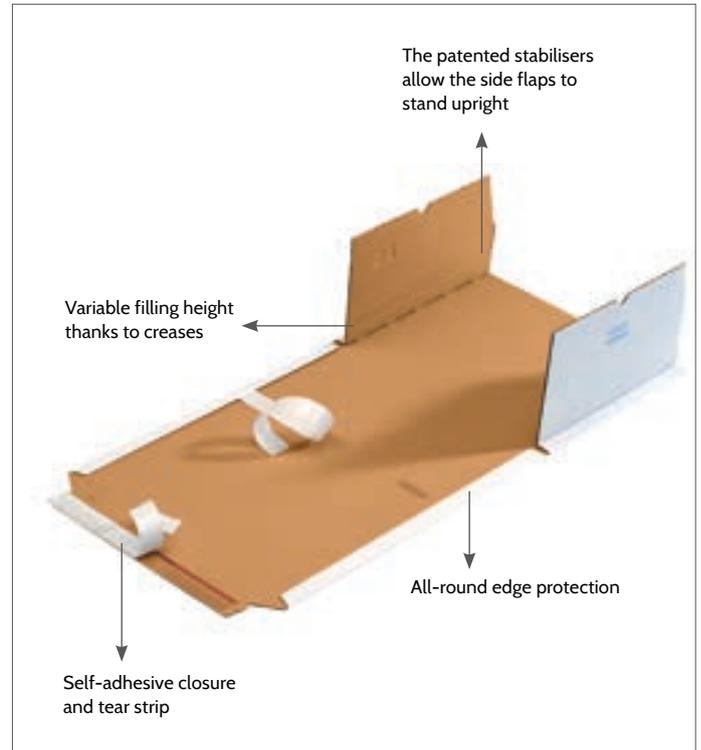
# Ordnerpac white

## Things have to be this tidy



- Handling advantage through patented stabilisers
- The tailor-made shipment packaging for DIN A4 files
- Shipment packaging for all DIN A4 files with a variable height of 35–80 mm
- Self-adhesive closure and tear strip
- Anti-theft security seal
- The all-round edge protection makes the Ordnerpac ideally suited to ship files

Please send us your enquiry for any prints, special sizes and special orders.



### ALL SIZES AT A GLANCE:

Item No.	Internal dimensions (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
OP	320 x 290 x 35-80	25 / 1.200	161 / 213	120 x 80 x 175	no	1.30-B-31

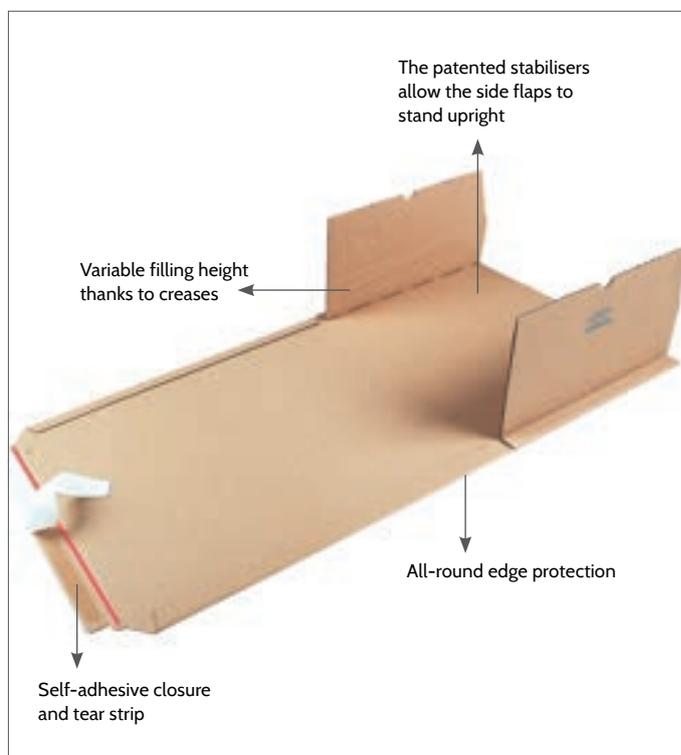
# Ordnerpac brown

## The tailor-made packaging for DIN A4 files



- Handling advantage through patented stabilisers
- The tailored packaging for DIN A4 files
- Shipment packaging for all DIN A4 files with a variable height of 35–80 mm
- Self-adhesive closure and tear strip
- The all-round edge protection makes the Ordnerpac ideally suited to ship files

Please send us your enquiry for any prints, special sizes and special orders.



### ALL SIZES AT A GLANCE:

Item No.	Internal dimensions (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
OPB	320 x 290 x 35-80	25 / 1.200	141 / 189	120 x 80 x 156	no	1.02-B-20

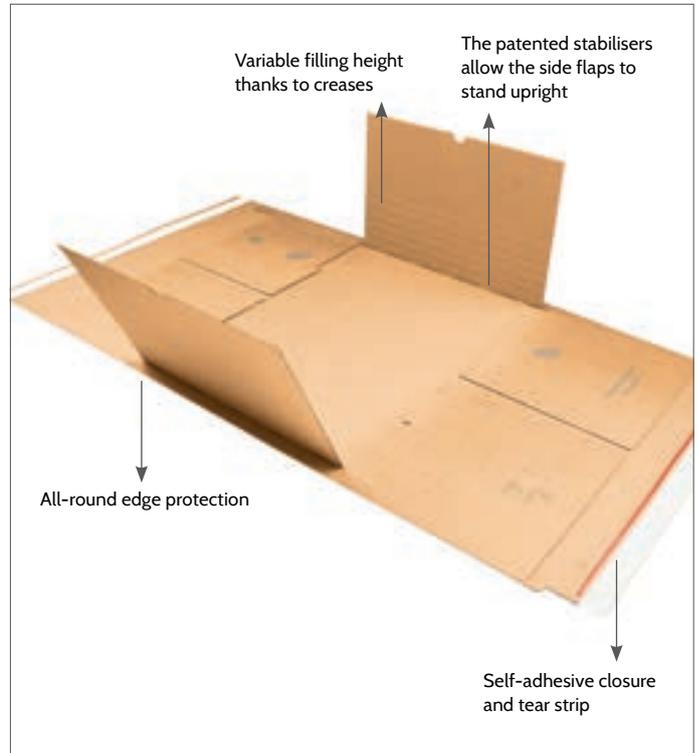
# Gigafix

## Hand-friendly packaging



- Handling advantage through patented stabilisers
- Easy handling: contents are placed in the middle
- Shipment packaging with variable height
- Can be filled in the middle, relieving the wrists when packing
- Self-adhesive closure and tear strip
- Anti-theft security seal
- All-round edge protection

Please send us your enquiry for any prints, special sizes and special orders.



### ALL SIZES AT A GLANCE:

Item No.	Internal dimensions (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
GF52	224 x 163 x 12-60	25 / 3.300	81 / 287	120 x 81 x 180	yes	1.20-E-21
GF53	230 x 165 x 15-80	25 / 2.850	93 / 284	120 x 83 x 165	yes	1.20-E-21
GF58	302 x 215 x 15-100	25 / 1.500	155 / 253	120 x 80 x 173	no	1.20-E-21
GF60	310 x 250 x 15-100	25 / 1.500	178 / 288	120 x 80 x 173	no	1.20-E-21
GF65	350 x 320 x 15-100	25 / 1.425	238 / 360	120 x 91 x 165	yes	1.20-E-21
GF68	455 x 320 x 15-100	25 / 950	302 / 307	120 x 91 x 165	yes	1.20-E-21

# Large and maxi letter formats Warenpost formats

## for Germany, Austria and Benelux



### Germany

#### Large letter

Maximum dimensions: 353 x 250 x 20 mm (B4)

Maximum weight: 500g

#### Maxi letter

Maximum dimensions: 353 x 250 x 50 mm (B4)

Maximum weight: 1000g

#### Warenpost

Maximum dimensions: 353 x 250 x 50 mm

Maximum weight: 1000g



### Austria

#### Maxi letter

Maximum dimensions: 324 x 229 x 20 mm

Maximum weight: 500g

#### Maxi Plus letter

Maximum dimensions: 353 x 250 x 24 mm

Maximum weight: 1000g

#### Large letter

Maximum dimensions: L+B+H = 900 mm, max. 500 mm

Maximum weight: 2000g



### The Netherlands

#### Large envelope

Maximum dimensions: 380 x 265 x 32 mm

Maximum weight: 2000g

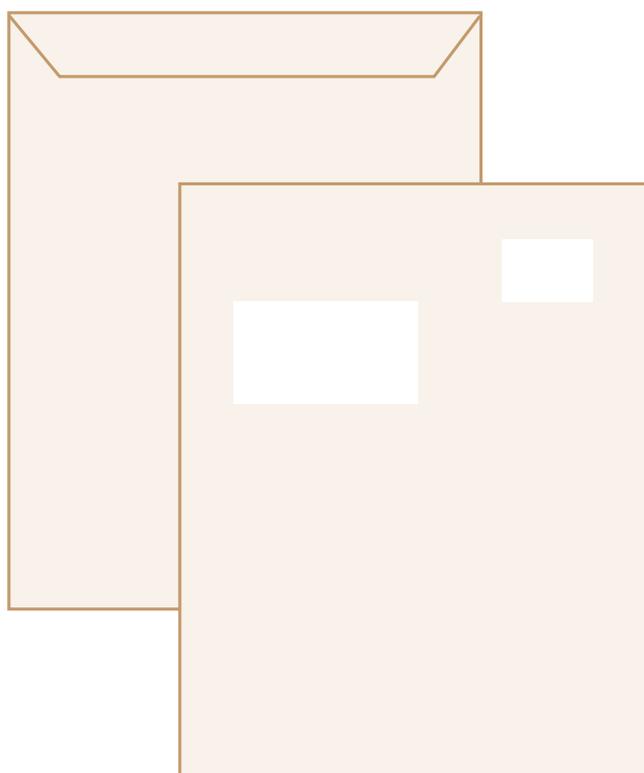


### Belgium

#### Large envelope

Maximum dimensions: 230 x 350 x 30 mm

Maximum weight: 2000g



## Selection of postage-optimised DREI V universal packaging

Item No.	Suitable for (usable size)	Ext. dimensions (L x W x H in mm)	Pc in gr	Postage-optimised for*
<b>Multiwell</b>				
MW152	A4	263 x 161 x 22-62	48	Large letter/Maxi letter/Warenpost
MW154	C5	291 x 171 x 32-82	52	Large letter/Maxi letter/Warenpost
MW156	B5	316 x 191 x 32-72	64	Large letter/Maxi letter/Warenpost
MW158	A4	348 x 221 x 32-87	74	Large letter/Maxi letter/Warenpost
MW52	A4	263 x 161 x 22-62	70	Large letter/Maxi letter/Warenpost
MW54	C5	291 x 171 x 32-82	85	Large letter/Maxi letter/Warenpost
MW56	B5	316 x 191 x 32-72	99	Large letter/Maxi letter/Warenpost
MW58	A4	348 x 221 x 32-87	125	Large letter/Maxi letter/Warenpost
MW351E	A6	192 x 130 x 18-48	37	Large letter/Maxi letter/Warenpost
MW352E	A5	262 x 159 x 18-58	60	Large letter/Maxi letter/Warenpost
MW354E	C5	290 x 169 x 28-78	73	Large letter/Maxi letter/Warenpost
MW356E	B5	315 x 189 x 28-68	82	Large letter/Maxi letter/Warenpost
MW358E	A4	347 x 219 x 28-83	104	Large letter/Maxi letter/Warenpost
MW352	A4	263 x 161 x 22-62	62	Large letter/Maxi letter/Warenpost
MW354	C5	291 x 171 x 32-82	81	Large letter/Maxi letter/Warenpost
MW356	B5	316 x 191 x 32-72	93	Large letter/Maxi letter/Warenpost
MW358	A4	348 x 221 x 32-87	116	Large letter/Maxi letter/Warenpost
<b>Gigafix</b>				
GF52	A5	270 x 171 x 28-72	81	Large letter/Maxi letter/Warenpost
GF53	C5	276 x 173 x 41-92	93	Large letter/Maxi letter/Warenpost
GF58	A4	348 x 223 x 36-112	155	Large letter/Maxi letter/Warenpost

\* Dimensions dependent on filling height / weight

# DIN Formats

DIN Formats	in mm
A0	841 x 1189
A1	594 x 841
A2	420 x 594
A3	297 x 420
A4	210 x 297
A5	148 x 210
A6	105 x 148
A7	74 x 105
A8	52 x 74
A9	37 x 52
A10	26 x 37

DIN Formats	in mm
B0	1000 x 1414
B1	707 x 1000
B2	500 x 707
B3	353 x 500
B4	250 x 353
B5	176 x 250
B6	125 x 176
B7	88 x 125
B8	62 x 88
B9	44 x 62
B10	31 x 44

DIN Formats	in mm
C0	917 x 1297
C1	648 x 917
C2	458 x 648
C3	324 x 458
C4	229 x 324
C5	162 x 229
C6	114 x 162
C7	81 x 114
C8	57 x 81
C9	40 x 57
C10	28 x 40

DIN Formats	in mm
D0	771 x 1090
D1	545 x 771
D2	385 x 545
D3	272 x 385
D4	192 x 272
D5	136 x 192
D6	96 x 136
D7	68 x 96
D8	48 x 68
D9	34 x 48
D10	24 x 34

### DID YOU KNOW ...

... that you can contact the DREI V Customer Service Team by telephone? The number is +49 89 904860-0.

# Put your goods in the bag – safe and easy

## Strong MAILERS for the secure sending of goods

By choosing DREI V mailers, you have the perfect solution for an optimally safe and comfortable dispatch of goods. Made of sturdy flute corrugated board, fine corrugated board or solid board, the mailers are specially developed for the optimised dispatch of printed products such as product brochures, catalogues and documents as well as flat articles. The traverse filling is particularly practical for handling.

- High bend protection
- Maximum security
- Innovative, self-adhesive closure
- Quick, easy closure
- Reliable tear strip
- Comes with practical traverse filling

A man with a beard and a blue shirt is smiling and looking at a woman with blonde hair in a ponytail, wearing a light pink top. They are both holding and looking at a stack of mailers. The background is a light, abstract pattern.

**SUPRAWELL**  
**TOPPAC**

# Suprawell 2 Series

## Sturdy and in strong kraftliner quality



- Mailer with a variable filling height up to 60 mm
- Ideal for consignments
- Self-adhesive closure and tear strip
- Secure shipping
- Easy handling
- Strong kraftliner quality
- Supply of 4 x 25 pieces (SW8: 3 x 25 pieces), sent compact and secure, bundled in outer packaging

Please send us your enquiry for any prints, special sizes and special orders.



### ALL SIZES AT A GLANCE:

Item No.	External dimensions (L x W in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
SW02	200 x 280	25 / 4.800	48 / 211	120 x 81 x 175	yes	1.20-E-21
SW2	198 x 314	25 / 4.000	52 / 227	120 x 80 x 177	yes	1.20-E-21
SW3	234 x 330	25 / 4.400	64 / 252	123 x 87 x 180	yes	1.20-E-21
SW4	250 x 353	25 / 3.600	74 / 285	130 x 83 x 170	yes	1.20-E-21
SW5	270 x 390	25 / 2.400	87 / 228	120 x 83 x 180	yes	1.20-E-21
SW6	290 x 410	25 / 2.000	97 / 214	120 x 83 x 163	yes	1.20-E-21
SW7	330 x 490	25 / 1.600	129 / 226	120 x 83 x 149	yes	1.20-E-21
SW8	370 x 540	25 / 1.500	158 / 257	124 x 80 x 153	yes	1.20-E-21

# Suprawell 3 Series

## Light and with strong flute corrugated board



- Mailer with a variable filling height up to 60 mm
- Ideal for consignments
- Self-adhesive closure and tear strip
- Secure shipping
- Easy handling
- Strong flute corrugated board for high bend protection
- Supply of 4 x 25 pieces (SW80: 3 x 25 pieces), sent compact and secure, bundled in outer packaging

Please send us your enquiry for any prints, special sizes and special orders.



### ALL SIZES AT A GLANCE:

Item No.	External dimensions (L x W in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
SW15	175 x 250	25 / 6.000	33 / 220	122 x 80 x 180	yes	1.02-E-20
SW19	200 x 280	25 / 4.000	39 / 176	120 x 81 x 157	yes	1.02-E-20
SW40	250 x 353	25 / 3.600	65 / 255	130 x 83 x 170	yes	1.02-E-20
SW50	270 x 390	25 / 2.400	77 / 205	120 x 83 x 180	yes	1.02-E-20
SW60	290 x 410	25 / 2.000	87 / 193	120 x 83 x 163	yes	1.02-E-20
SW70	330 x 490	25 / 1.600	116 / 206	120 x 83 x 149	yes	1.02-E-20
SW80	370 x 540	25 / 1.500	143 / 234	124 x 80 x 153	yes	1.02-E-20

# Suprawell 3 Series G (without outer packaging)

## Reduced freight and logistics costs



- Mailer with a variable filling height up to 60 mm
- Ideal for consignments
- Self-adhesive closure and tear strip
- Bundled
- cost-effective and space-saving delivery: bundled only and without outer packaging on pallet
- Secure shipping
- Easy handling

Please send us your enquiry for any prints, special sizes and special orders.



### ALL SIZES AT A GLANCE:

Item No.	External dimensions (L x W in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
SW15G	175 x 250	25 / 7.650	33 / 276	123 x 81 x 159	yes	1.02-E-20
SW19G	200 x 280	25 / 6.000	42 / 274	120 x 80 x 175	no	1.02-E-20
SW20G	198 x 314	25 / 6.000	47 / 299	120 x 80 x 175	no	1.02-E-20
SW40G	250 x 353	25 / 5.000	65 / 347	125 x 84 x 175	yes	1.02-E-20
SW50G	270 x 390	25 / 3.000	77 / 251	120 x 80 x 175	no	1.02-E-20
SW60G	290 x 410	25 / 3.000	87 / 280	120 x 80 x 175	no	1.02-E-20
SW70G	330 x 490	25 / 2.500	116 / 311	120 x 89 x 175	yes	1.02-E-20
SW80G	370 x 540	25 / 2.000	142 / 305	121 x 80 x 175	yes	1.02-E-20

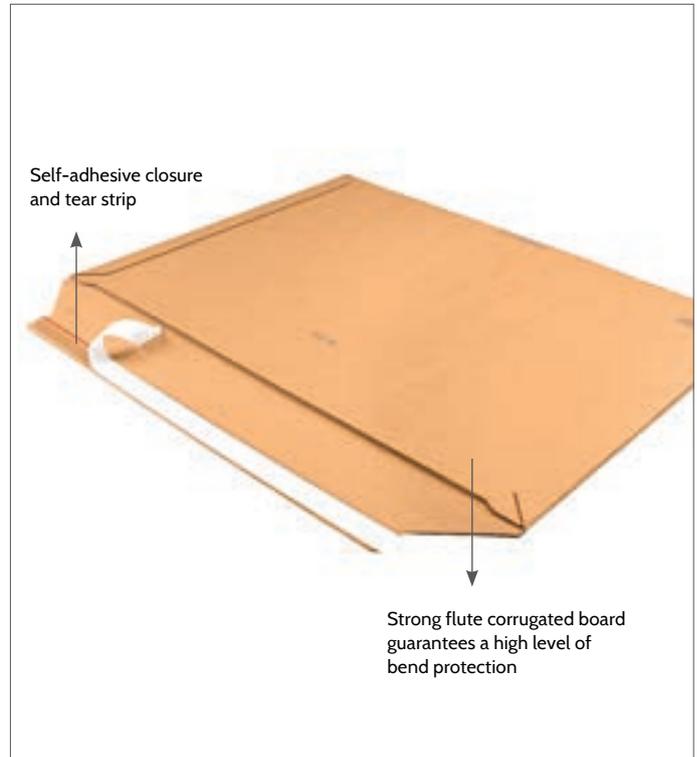
# Suprawell 9 Series

## The space miracle up to DIN A2



- Mailer for quick traverse filling
- From small formats up to DIN A2
- Variable filling height up to 60 mm
- Self-adhesive closure and tear strip
- Secure shipping
- Easy handling

Please send us your enquiry for any prints, special sizes and special orders.



### ALL SIZES AT A GLANCE:

Item No.	External dimensions (L x W in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
SW905	233 x 123	25 / 5.400	26 / 162	120 x 80 x 109	no	1.20-E-21
SW912	226 x 162	25 / 7.875	32 / 275	120 x 80 x 180	no	1.20-E-21
SW918	252 x 202	25 / 6.300	66 / 298	120 x 80 x 180	no	1.20-E-21
SW930	336 x 234	25 / 4.200	73 / 327	121 x 80 x 180	yes	1.20-E-21
SW940	350 x 250	25 / 4.200	118 / 267	127 x 80 x 180	yes	1.20-E-21
SW965	446 x 324	25 / 2.100	185 / 214	120 x 80 x 180	no	1.20-E-21
SW981	536 x 434	25 / 1.050	116 / 136	120 x 80 x 180	no	1.20-E-21
SW990	665 x 490	25 / 650	300 / 215	120 x 80 x 180	no	1.31-B-21
SW995	740 x 530	25 / 600	319 / 211	121 x 80 x 179	yes	1.31-B-21
SW998	1.050 x 750	10 / 280	690 / 213	120 x 86 x 168	yes	1.31-B-21

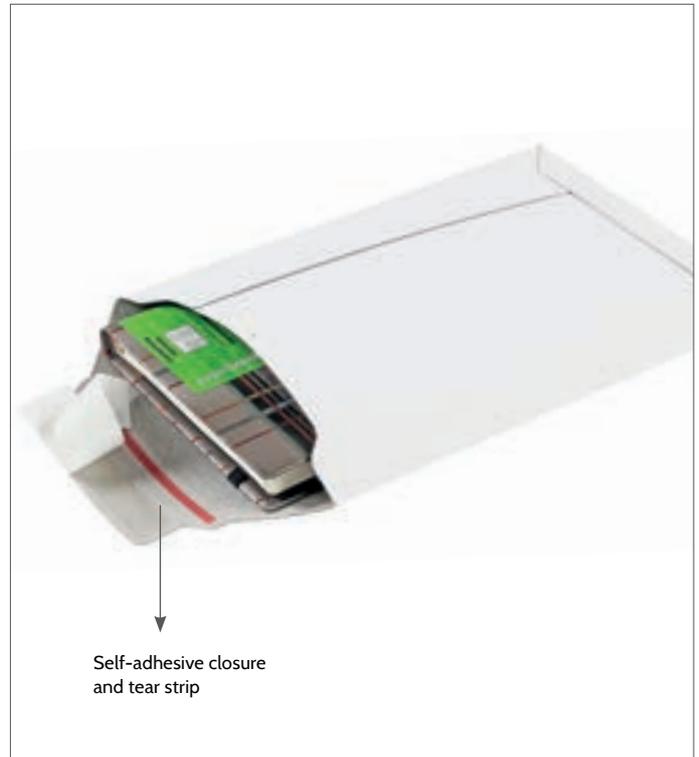
# Toppac 2 Series

## All in white and perfectly packed



- Mailer in white with a variable filling height up to 50 mm
- Simply perfect for consignments
- Self-adhesive closure and tear strip
- Optimum protection
- Ideally suited for printing
- Easy handling
- Ending with "A" corresponds to old grammage
- Delivery of 4 x 25 pieces compactly and securely bundled in an outer carton (TP260A = 3 x 25 pieces)
- Info: As soon as the stock of the Toppac 2 series in GD2-500 g/m<sup>2</sup> is used up, the articles will be delivered in GD2-400 g/m<sup>2</sup> quality

Please send us your enquiry for any prints, special sizes and special orders.



### ALL SIZES AT A GLANCE:

Item No.	External dimensions (L x W in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
TP210A	175 x 250	25 / 9000	51 / 476	120 x 80 x 75	nein	GD2-500 g/m <sup>2</sup>
TP220A	215 x 270	25 / 6000	66 / 418	120 x 80 x 151	nein	GD2-500 g/m <sup>2</sup>
TP230A	240 x 315	25 / 5400	85 / 480	120 x 80 x 162	nein	GD2-500 g/m <sup>2</sup>
TP235A	250 x 353	25 / 4200	97 / 429	120 x 80 x 168	nein	GD2-500 g/m <sup>2</sup>
TP240A	265 x 350	25 / 4500	104 / 488	120 x 81 x 141	ja	GD2-500 g/m <sup>2</sup>
TP250A	295 x 375	25 / 3600	125 / 470	122 x 80 x 149	ja	GD2-500 g/m <sup>2</sup>
TP260A	320 x 455	25 / 2400	178 / 446	120 x 80 x 147	nein	GD2-550 g/m <sup>2</sup>
TP210	175 x 250	25 / 12600	40 / 549	115 x 73 x 180	nein	GD2-400 g/m <sup>2</sup>
TP220	215 x 270	25 / 9800	53 / 562	121 x 73 x 172	ja	GD2-400 g/m <sup>2</sup>
TP230	240 x 315	25 / 7200	68 / 530	110 x 77 x 165	nein	GD2-400 g/m <sup>2</sup>
TP235	250 x 353	25 / 7200	79 / 589	121 x 79 x 171	ja	GD2-400 g/m <sup>2</sup>
TP240	265 x 350	25 / 7200	83 / 640	121 x 73 x 180	ja	GD2-400 g/m <sup>2</sup>
TP250	295 x 375	25 / 5000	98 / 528	110 x 81 x 167	ja	GD2-400 g/m <sup>2</sup>
TP260	320 x 455	25 / 4000	143 / 610	105 x 79 x 180	nein	GD2-450 g/m <sup>2</sup>

# Toppac 3 Series

## Simply perfect for consignments

- Mailer in brown with a variable filling height up to 50 mm
- Simply perfect for consignments
- Self-adhesive closure and tear strip
- Optimum protection
- Ideally suited for printing
- Easy handling
- Ending with "A" corresponds to old grammage
- Delivery of 4 x 25 pieces compactly and securely bundled in an outer carton (TP360A = 3 x 25 pieces)
- Info: As soon as the stock of the Toppac 3 series in GK1-500 g/m<sup>2</sup> is used up, the articles will be delivered in the quality GK1-400 g/m<sup>2</sup>

Please send us your enquiry for any prints, special sizes and special orders.



### ALL SIZES AT A GLANCE:

Item No.	External dimensions (L x W in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
TP310A	175 x 250	50 / 9000	46 / 431	120 x 80 x 175	nein	GK1-450 g/m <sup>2</sup>
TP320A	215 x 270	25 / 6000	64 / 402	120 x 80 x 151	nein	GK1-500 g/m <sup>2</sup>
TP330A	240 x 315	25 / 5400	85 / 479	120 x 80 x 162	nein	GK1-500 g/m <sup>2</sup>
TP335A	250 x 353	25 / 4200	95 / 418	120 x 80 x 168	nein	GK1-500 g/m <sup>2</sup>
TP340A	265 x 350	25 / 4500	104 / 488	120 x 81 x 141	ja	GK1-500 g/m <sup>2</sup>
TP350A	295 x 375	25 / 3600	125 / 470	120 x 80 x 149	nein	GK1-500 g/m <sup>2</sup>
TP360A	320 x 455	25 / 2400	178 / 446	120 x 80 x 147	nein	GK1-550 g/m <sup>2</sup>
TP310	175 x 250	25 / 12600	40 / 549	115 x 73 x 180	nein	GK1-400 g/m <sup>2</sup>
TP320	215 x 270	25 / 9800	53 / 562	121 x 73 x 172	ja	GK1-400 g/m <sup>2</sup>
TP330	240 x 315	25 / 7200	68 / 530	110 x 77 x 165	nein	GK1-400 g/m <sup>2</sup>
TP335	250 x 353	25 / 7200	79 / 589	121 x 79 x 171	ja	GK1-400 g/m <sup>2</sup>
TP340	265 x 350	25 / 7200	83 / 640	121 x 73 x 180	ja	GK1-400 g/m <sup>2</sup>
TP350	295 x 375	25 / 5000	98 / 528	110 x 81 x 167	ja	GK1-400 g/m <sup>2</sup>
TP360	320 x 455	25 / 4000	143 / 610	105 x 79 x 180	nein	GK1-450 g/m <sup>2</sup>

## Selection of postage-optimised DREI V mailers

Item No.	Suitable for (usable size)	Ext. dimensions (L x W x H in mm)	Pc in gr	Postage-optimised for*
<b>Suprawell</b>				
SW02	E5	200 x 280	48	Large letter/Maxi letter/Warenpost
SW2	D2	198 x 314	52	Large letter/Maxi letter/Warenpost
SW3	C4	234 x 330	64	Large letter/Maxi letter/Warenpost
SW4	A4	250 x 353	74	Large letter/Maxi letter/Warenpost
SW15	C5	175 x 250	33	Large letter/Maxi letter/Warenpost
SW19	D4	200 x 280	39	Large letter/Maxi letter/Warenpost
SW40	A4	250 x 353	65	Large letter/Maxi letter/Warenpost
SW15G	C5	175 x 250	33	Large letter/Maxi letter/Warenpost
SW19G	D4	200 x 280	42	Large letter/Maxi letter/Warenpost
SW20G	D4	198 x 314	47	Large letter/Maxi letter/Warenpost
SW40G	A4	250 x 353	65	Large letter/Maxi letter/Warenpost
SW905	B6	233 x 123	26	Large letter/Maxi letter/Warenpost
SW912	A5	226 x 162	32	Large letter/Maxi letter/Warenpost
SW918	B5	252 x 202	66	Großbrief/Maxibrief/Warenpost
SW930	C4	336 x 234	73	Großbrief/Maxibrief/Warenpost
SW940	B4	350 x 250	118	Großbrief/Maxibrief/Warenpost
<b>Toppac</b>				
TP205	B6	229 x 114	46	Großbrief/Maxibrief/Warenpost
TP210	C5	175 x 250	51	Large letter/Maxi letter/Warenpost
TP220	B5	215 x 270	66	Large letter/Maxi letter/Warenpost
TP230	A4	240 x 315	85	Large letter/Maxi letter/Warenpost
TP235	B4	250 x 353	97	Large letter/Maxi letter/Warenpost
TP310	C5	175 x 250	46	Large letter/Maxi letter/Warenpost
TP320	B5	215 x 270	64	Large letter/Maxi letter/Warenpost
TP330	A4	240 x 315	85	Large letter/Maxi letter/Warenpost
TP335	B4	250 x 353	95	Large letter/Maxi letter/Warenpost

# Robust shipping tubes can be something special

## Robust SHIPPING SLEEVES for postage-optimised XL shipping

We have specifically developed our robust shipping sleeves for the safe and low-cost shipping of large formats. Calendars, placards, posters, art prints or blueprints as well as various "extra-long" goods can be sent quickly, safely and comfortably in the space-saving shipping sleeves without a surcharge for bulky packaging. The high quality of the material and the innovative production process give the DREI V shipping tubes excellent product qualities.

- Secure, value shipping
- High-quality materials
- Integrated crumple zone
- Practical, self-adhesive sealing system
- Easy handling

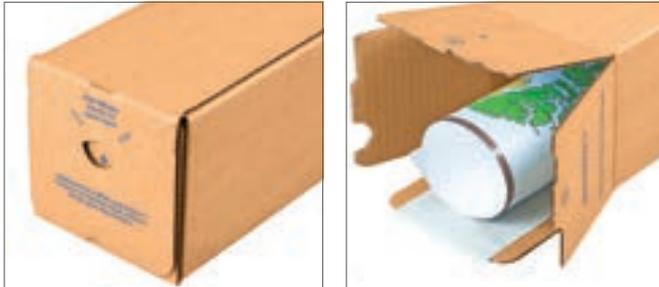


QUATTROPAC

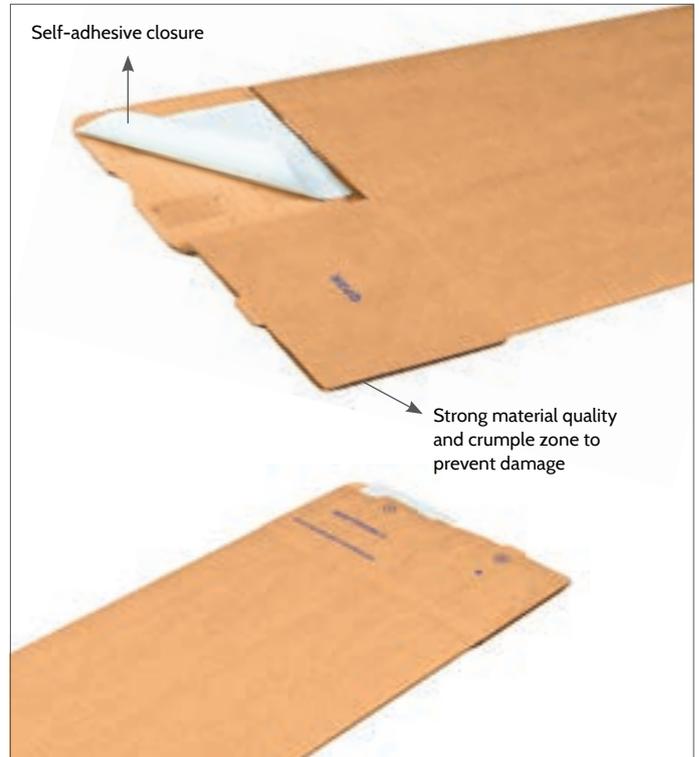
TRIPAC

# Quattropac

## A flat solution with an automatic base



- Shipping tube without oversize surcharge
- Shipping tube with automatic base and self-adhesive closure
- Delivered flat
- Lid and base with self-adhesive closure and tuck-in flap
- 70% saving on space when stored
- Contains no composite materials such as a plastic lid or metal staples
- Very quick handling
- The content can be easily removed thanks to the rectangular shape
- Very stable
- Can be disposed flat



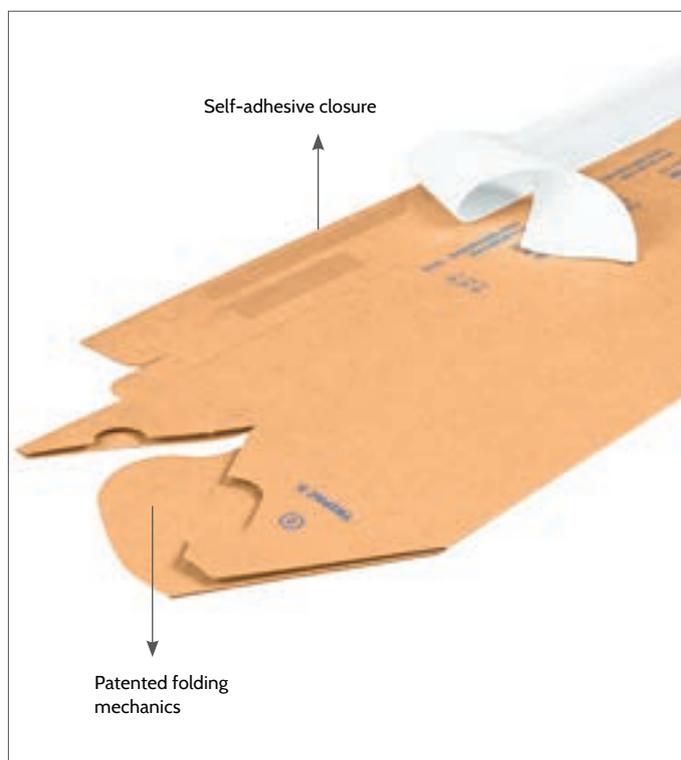
Please send us your enquiry for any prints, special sizes and special orders.

### ALL SIZES AT A GLANCE:

Item No.	max. Pack sizes (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
QP2	430 x 105 x 105	10 / 1.560	116 / 201	120 x 88 x 176	yes	1.31-B-21
QP3	500 x 105 x 105	10 / 1.560	129 / 222	120 x 88 x 176	yes	1.31-B-21
QP4	610 x 105 x 105	10 / 1.300	151 / 216	120 x 88 x 176	yes	1.31-B-21
QP5	700 x 105 x 105	10 / 1.040	167 / 194	120 x 88 x 176	yes	1.31-B-21
QP6	860 x 105 x 105	10 / 1.040	198 / 225	120 x 88 x 176	yes	1.31-B-21
QP7	1.100 x 105 x 105	10 / 1.040	242 / 271	134 x 88 x 176	yes	1.31-B-21

# Tripac

## The good idea with three corners



- Very strong and saves space thanks to its triangular shape
- Semi-automatic base with self-adhesive closure
- Lid with tuck-in flap
- 70% saving on space when stored
- Contains no composite materials such as a plastic lid or metal staples
- Very stable thanks to its triangular shape
- Assembled in seconds

Please send us your enquiry for any prints, special sizes and special orders.

### ALL SIZES AT A GLANCE:

Item No.	max. Pack sizes (L x Ø in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
TP1	310 x 60	20 / 1.680	69 / 137	120 x 80 x 124	no	1.30-E-22
TP2	430 x 60	20 / 1.300	84 / 129	120 x 80 x 124	no	1.30-E-22
TP3	430 x 80	20 / 1.020	120 / 142	120 x 80 x 124	no	1.30-E-22
TP4	610 x 80	20 / 800	159 / 147	120 x 80 x 124	no	1.30-E-22
TP5	700 x 70	20 / 840	155 / 150	120 x 80 x 124	no	1.30-E-22
TP6	860 x 80	20 / 640	215 / 157	120 x 80 x 124	no	1.30-E-22

# Shipping boxes which save time and money

## SHIPPING CARTONS for time- and cost-optimised shipping

For e-commerce, the shipment of goods forms one of the most important links in the value chain. Free deliveries within 48 hours demand an incredibly high degree of time and cost efficiency. DREI V shipping boxes are specially designed for these demands. They save time when packing and reduce the material and postage costs down to a minimum.

- Tailor-made for e-commerce
- Optimal product protection
- Maximum efficiency in handling
- Reduced material, storage and postage costs



**PACKFIX**

**SPEEDPAC**

**PACKBOX**

**SMALLFIX**

# Packfix

## Lightning quick and much more besides



Also available as Packfix Return with double self-adhesive closure (PFR)



- All-round packaging for mail order products
- Set it up in seconds thanks to the automatic base
- Double product protection thanks to the completely overlapping base and lid
- Perfect in handling and comfort thanks to self-adhesive closure and tear strip
- More flexibility thanks to designs with variable height
- Light but robust: PF10E, PF20E and PF30E in E-wall design
- also available in selected sizes as Packfix Return with double self-adhesive seal for outbound and return shipping (PFR)

Please send us your enquiry for any prints, special sizes and special orders.

### ALL SIZES AT A GLANCE:

Item No.	Internal dimensions (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
PF10 / PFR10	160 x 130 x 70	20 / 3200	58 / 206	120 x 86 x 158	yes	1.31-B-21
PF10E	161 x 131 x 73	20 / 5760	51 / 313	120 x 84 x 175	yes	1.20-E-21
PF13	200 x 150 x 150	20 / 1600	99 / 178	126 x 80 x 158	yes	1.31-B-21
PF15	200 x 200 x 100	20 / 1200	114 / 156	123 x 80 x 158	yes	1.31-B-21
PF20 / PFR20	213 x 153 x 109	20 / 1980	94 / 207	120 x 83 x 173	yes	1.31-B-21
PF20E	214 x 154 x 112	20 / 3240	83 / 288	120 x 83 x 175	yes	1.20-E-21
PF26 / PFR26	210 x 180 x 130	20 / 1560	117 / 202	137 x 82 x 158	yes	1.31-B-21
PF30 / PFR30	230 x 160 x 80	20 / 2000	93 / 206	127 x 80 x 158	yes	1.31-B-21
PF30E	231 x 161 x 83	20 / 3600	82 / 315	120 x 80 x 175	no	1.20-E-21
PF33 / PFR33	260 x 220 x 130	20 / 1100	162 / 198	120 x 85 x 172	yes	1.31-B-21
PF35	305 x 215 x 140-220	20 / 880	204 / 199	120 x 89 x 158	yes	1.31-B-21
PF37	290 x 190 x 180	20 / 800	168 / 154	120 x 80 x 158	no	1.31-B-21
PF40	310 x 230 x 81-160	20 / 800	191 / 173	120 x 87 x 130	yes	1.31-B-21
PF41 / PFR41	310 x 230 x 110	20 / 800	180 / 164	120 x 80 x 158	no	1.31-B-21
PF42 / PFR42	310 x 230 x 160	20 / 800	202 / 182	120 x 81 x 158	yes	1.31-B-21
PF50	345 x 256 x 130	20 / 800	222 / 198	122 x 80 x 158	yes	1.31-B-21
PF55	390 x 290 x 180	20 / 400	304 / 142	120 x 80 x 158	no	1.31-B-21
PF57	390 x 290 x 280	20 / 400	360 / 164	120 x 80 x 158	no	1.31-B-21
PF60	400 x 260 x 250	20 / 440	317 / 160	120 x 80 x 172	no	1.31-B-21
PF70 / PFR70	430 x 310 x 200	20 / 400	359 / 163	120 x 80 x 158	no	1.31-B-21

# Speedpac

## Packed faster is not possible



- universally applicable
- closes the gap between PACKFIX and FEFCO O201
- anti-theft protected thanks to the fully glued base and lid
- High-speed handling thanks to innovative construction and self-adhesive closure
- comfortable opening due to tear perforation

Please send us your enquiry for any prints, special sizes and special orders.



### ALL SIZES AT A GLANCE:

Item No.	Internal dimensions (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
SP10	160 x 145 x 75	25 / 2.500	61 / 173	120 x 82 x 122	yes	1.20-D-20
SP20	213 x 153 x 110	25 / 2.800	88 / 266	120 x 80 x 165	no	1.20-D-20
SP26	210 x 180 x 130	25 / 2.250	104 / 254	120 x 80 x 176	no	1.20-D-20
SP30	230 x 160 x 80	25 / 3.000	83 / 269	120 x 80 x 176	no	1.20-D-20
SP33	255 x 215 x 130	25 / 1.750	142 / 269	120 x 87 x 165	yes	1.20-D-20

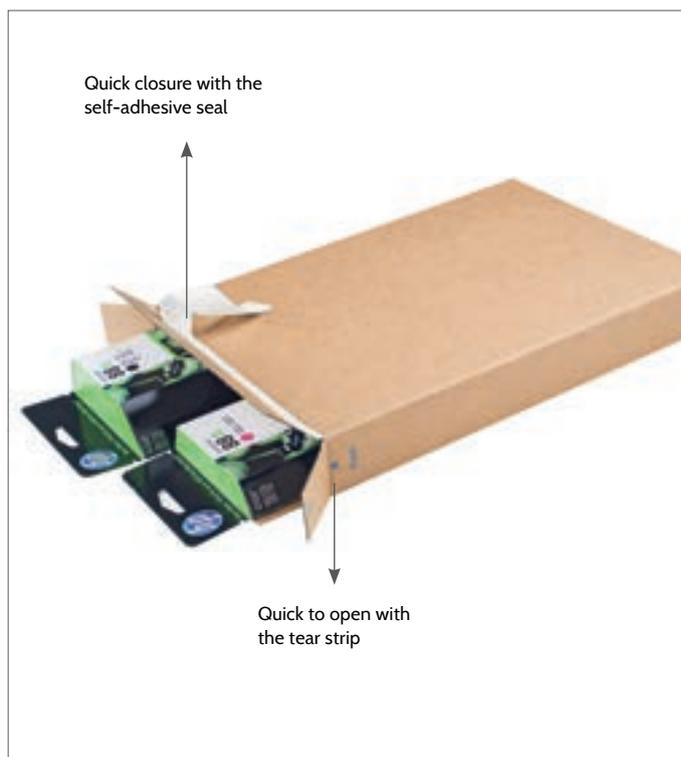
# Packbox

## Cost-effective shipping as maxi letter or Warenpost



- Highly postage-optimised and quick handling
- Flat folding shipping box
- Self-adhesive closure on base and lid, with tear perforation
- Quick and easy to assemble and pack
- When sent as a maxi letter, it can be filled with up to 46 mm of contents

Please send us your enquiry for any prints, special sizes and special orders.



### ALL SIZES AT A GLANCE:

Item No.	Internal dimensions (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
PB20	165 x 46 x 245	25 / 5225	54 / 304	120 x 80 x 167	no	1.20-E-21
PB40	243 x 46 x 343	25 / 2850	96 / 294	120 x 80 x 167	no	1.20-E-21

# Smallfix

## The lightning-quick shipping packaging in small format

**NEW:**  
Now also in  
kraft liner  
quality!



- Quick shipping packaging with half-automatic base
- Quick set-up thanks to the half-automatic base
- All-round sealed and anti-theft protected thanks to the connection between the inlying and external lid-/base-flaps
- Thanks to postage optimized sizes shippable as maxi letter or Warenpost
- Also easy to fill from the top, even in flat versions
- Self-adhesive closure and tear strip
- Protected development from DREI V
- Available in consumer-friendly letterbox format up to a minimum height of 10 mm

Please send us your enquiry for any prints, special sizes and special orders.

### ALL SIZES AT A GLANCE:

Item No.	Internal dimensions (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
SF120	213 x 153 x 8	25 / 2700	55 / 169	120 x 80 x 173	no	1.20-E-21
SF130	213 x 153 x 17	25 / 2700	57 / 175	120 x 80 x 173	no	1.20-E-21
SF150	213 x 153 x 37	25 / 2700	63 / 190	120 x 80 x 173	no	1.20-E-21
SF190	213 x 153 x 77	25 / 2700	74 / 220	120 x 80 x 173	no	1.20-E-21
SF124	305 x 215 x 8	25 / 1800	289 / 540	120 x 88 x 173	yes	1.30-E-22
SF134	305 x 215 x 17	25 / 1800	297 / 554	120 x 90 x 173	yes	1.30-E-22
SF154	305 x 215 x 37	25 / 1800	316 / 588	120 x 95 x 173	yes	1.30-E-22
SF194	305 x 215 x 77	25 / 1350	348 / 489	131 x 80 x 173	yes	1.30-E-22
SF320	213 x 153 x 8	25 / 2700	47 / 147	120 x 80 x 173	no	1.02-E-20
SF330	213 x 153 x 17	25 / 2700	49 / 152	120 x 80 x 173	no	1.02-E-20
SF350	213 x 153 x 37	25 / 2700	57 / 173	120 x 80 x 173	no	1.02-E-20
SF390	213 x 153 x 77	25 / 2700	63 / 190	120 x 80 x 173	no	1.02-E-20

## Selection of postage-optimised DREI V shipping boxes

Item No.	Suitable for (usable size)	Ext. dimensions (L x W x H in mm)	Pc in gr	Postage-optimised for*
<b>Smallfix</b>				
SF120 / SF320	A5	219 x 157 x 20	55 / 47	Large letter/Maxi letter/Warenpost
SF130 / SF330	A5	219 x 157 x 29	57 / 49	Maxi letter/Warenpost
SF150 / SF350	A5	219 x 157 x 49	63 / 57	Maxi letter/Warenpost
SF124 / SF324	A4	311 x 219 x 20	289 / 293	Large letter/Maxi letter/Warenpost
SF134 / SF334	A4	311 x 219 x 29	297 / 301	Maxi letter/Warenpost
SF154 / SF354	A4	311 x 219 x 49	316 / 320	Maxi letter/Warenpost
<b>Packbox</b>				
PB20	C5	169 x 50 x 249	54	Maxi letter/Warenpost

\* Dimensions dependent on filling height / weight

# Retention packaging is more than just a fixed idea

## Retention packaging - perfect protection for delicate products

Retention packaging is a fast packaging method that allows even the most delicate products to safely withstand transport. In film retention packaging, the packaged goods are fixed with the aid of an extremely elastic polyethylene (LDPE) or polyurethane (PU) film; shocks and vibrations during shipping are perfectly cushioned. Paper retention packaging is characterised by an integrated paper insert, which fixes the packaged goods and simultaneously provides shockproof padding. Both film and paper retention packaging require no additional filling materials, reduce the volume of the packaging and are 100%-recyclable with waste paper without the need for separation.

- Strong, resistant, quick packaging
- Perfectly fixed packaged goods
- Integrated film or paper solution
- All-round shock protection
- Maximum safety
- Film can be recycled with waste paper



**MINIPAC**

**QUICKSNAP**

**MULTISNAP**

**LAPSNAP**

**PAPERSNAP**

**SAFEBOX**

**PAPERPAC**

# Film retention packaging

## Perfect protection for highly delicate products

### Film fixing packages are extremely stable and resistant fast packaging.

With the aid of a special film made of polyethylene (LDPE) or polyurethane (PU), the packaged goods are securely fixed and protected. The film is extremely elastic and almost tear-resistant and adapts to any surface. This makes DREI V film retention packaging the ideal packaging solution for all types of sensitive goods, including highly sensitive electronic products weighing up to approx. 35 kilograms. The packaging design, which is perfectly matched to the product, offers optimum protection against shocks and vibrations without additional padding and stuffing of the intermediate spaces with paper, foam or composite materials. Standard integrated or customisable features such as self-adhesive closure, tear strip and return-delivery suitability round off the profile of the DREI V film retention packaging as handling-optimised comfort packaging.

### THE ADVANTAGES AT A GLANCE:

- Optimum protection against shock and vibrations
- Increased efficiency in the packaging process through fast handling
- Cost reduction in the procurement and logistics process through reduced packaging diversity
- High environmental compatibility due to no filling materials being required
- Simple, unseparated and environmentally friendly disposal with waste paper
- Image enhancement through professional optics and comfortable unpacking



### STANDARD PACKAGING OR CUSTOMISED SOLUTION

A large number of DREI V film retention packages are available on stock or at short notice in the standard and series ranges without tool costs. The full list, which is permanently updated, can be found at [www.drei-v.de/de/folienfixierverpackungen.html](http://www.drei-v.de/de/folienfixierverpackungen.html) or can be sent by our sales team on request. However, our experience shows that in most cases, a packaging design that is individually tailored to the product or product group and developed specifically for this purpose is not only the better solution, but is also a more cost-effective solution. We are happy to advise you personally and develop the best packaging for your application for or with you.

**PACKAGING TYPES:**

Essentially, we offer three different types of film retention packaging:

**DREI V - QUICKSNAP**

**The one-piece film retention package**

QUICKSNAP film retention packages are one-piece corrugated board packaging with glued-on LDPE or PU film. The fixing element is an integral part of the transport packaging and therefore no additional outer packaging is necessary.



QUICKSNAP standard variant  
See Page 53 and complete current list at [www.drei-v.de/de/folienfixierverpackungen.html](http://www.drei-v.de/de/folienfixierverpackungen.html)



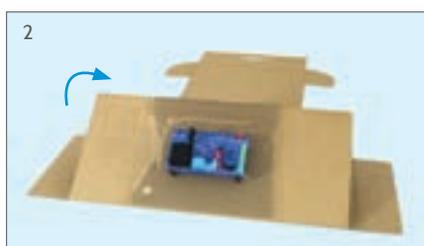
QUICKSNAP design example with specially designed retention element



QUICKSNAP design example with antistatic corrugated board and antistatic PU film



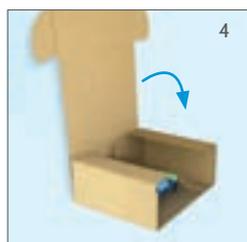
1 Put the packaged goods under the film.



2 Fold over the side flap to stretch the film.



3 Fold up the side walls.



4 Fold the lid.



6 Close the packaging with the self-adhesive closure.

Please see our handling video at [www.packagingfinder.de](http://www.packagingfinder.de).

## DREI V - MULTISNAP

**The two-part film retention packaging (inlay + outer packaging)**

MULTISNAP film retention packaging consists of corrugated cardboard packaging with glued-on LDPE or PU film (inlay) and suitable outer packaging. By simply folding down the flaps, the film is automatically tensioned, safely and securely fixing the packaged goods on the corrugated board carrier element. In addition, the corrugated board packaging is structurally equipped with a shock-absorbing function. The DREI V PACKFIX shipping box is the ideal supplement to the MULTISNAP and guarantees fast handling.



MULTISNAP standard version  
See page 54 and a complete, up-to-date list at [www.drei-v.de/de/folienfixierverpackungen.html](http://www.drei-v.de/de/folienfixierverpackungen.html).



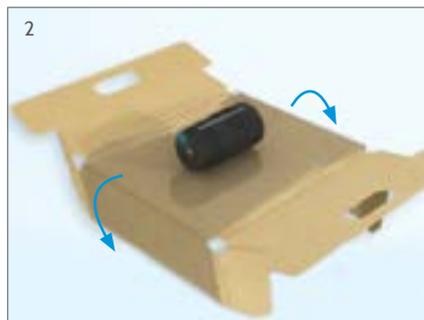
MULTISNAP design example  
with individually coordinated inlay and PACKFIX  
outer packaging in special design



MULTIWELL standard version  
LAPSNAP for laptops.  
See pages 20 to 22



1  
Fold up the side flaps and place the packaged goods under the film.



2  
Fold over the side flaps to stretch the film.



3  
Fold up the sides and place in the outer packaging.

Please see our handling video at [www.packagingfinder.de](http://www.packagingfinder.de).

## DREI V - EASYSNAP

**The three-part membrane packaging**

EASYSNAP membrane packaging is suitable for sensitive and/or heavy packaged goods weighing up to approx. 35 kg. It consists of two fixation frames made of corrugated board with glued-on LDPE or PU film, each of which forms a membrane pad, as well as suitable outer packaging. The product is embedded between the two membrane pads and thus transported floating. Due to the fixation between the two extremely stretchable films, vibrations and shocks are almost completely cushioned. The DREI V PACKFIX shipping box is the ideal supplement to the MULTISNAP and guarantees fast handling.

**EASYSNAP Standard MEMBRANE PADDING**

Complete, up-to-date list at

[www.drei-v.de/de/fohlenfixierverpackungen.html](http://www.drei-v.de/de/fohlenfixierverpackungen.html)

EASY SNAP design example with individually matched membrane pads and PACKFIX outer packaging



1 Place the membrane insert into the outer packaging.



3 Place the packaged goods onto the film.



4 Place the second membrane insert onto the packaged goods.



5 The packaged goods are embedded between the two retention frames.



6 Close the outer packaging.

Please see our handling video at [www.packagingfinder.de](http://www.packagingfinder.de).

# Quicksnap

## With stretchable LDPE special film



- The flexible one-piece all-rounder
- Corrugated cardboard packaging with adhesive 40 micron LDPE film to secure your goods
- Self-adhesive closure (QS25: 2 self-adhesive closures)
- Tuck-in flap and tear strip
- Content is protected by the film retention
- Strong kraftliner quality
- Extremely stretchable LDPE film

Please send us your enquiry for any prints, special sizes and special orders.

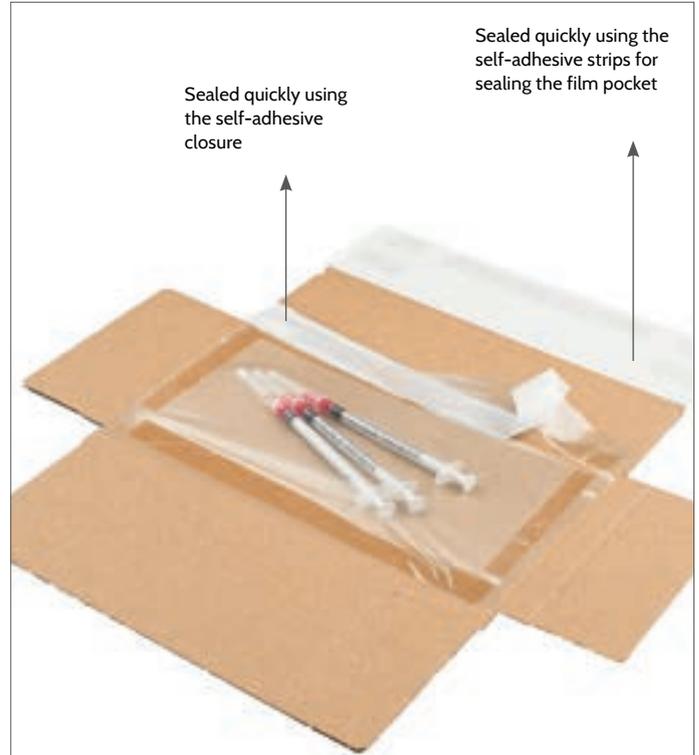


### ALL SIZES AT A GLANCE:

Item No.	max. Pack sizes (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
QS25	200 x 80 x 25	25 / 1725	103 / 198	120 x 87 x 170	yes	1.40-B-27
QS50	126 x 94 x 64	20 / 1860	99 / 204	120 x 80 x 176	no	1.40-B-27
QS70	156 x 104 x 54	20 / 1240	110 / 156	120 x 81 x 176	yes	1.40-B-27
QS100	150 x 100 x 50	20 / 1740	126 / 239	120 x 80 x 177	no	1.50-B-22
QS300	200 x 140 x 50	20 / 1160	188 / 239	120 x 93 x 177	yes	1.50-B-22
QS400	256 x 154 x 54	20 / 1240	178 / 241	120 x 96 x 176	yes	1.40-B-27
QS500	310 x 180 x 35	20 / 580	246 / 162	120 x 80 x 177	no	1.50-B-22

# Minipac

## Lots of security for little parts



- Send small parts securely
- Corrugated board mailer with 40 micron LDPE film
- Self-adhesive closure and additional self-adhesive strips for closing the film pocket
- Tear strip
- The DREI V film tension with self-adhesive strip prevents slipping of your product
- Usable size under film: 190 mm x 80 mm (may vary depending on the content)
- Max. content height: 15 mm
- Internal dimensions without film (L x W x H): 231 x 118 x 15

Please send us your enquiry for any prints, special sizes and special orders.

### ALL SIZES AT A GLANCE:

Item No.	External dimensions (L x W in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
MP10	235 x 122 x 20	25 / 6600	37 / 266	120 x 80 x 180	no	1.20-E-21

# Multisnap

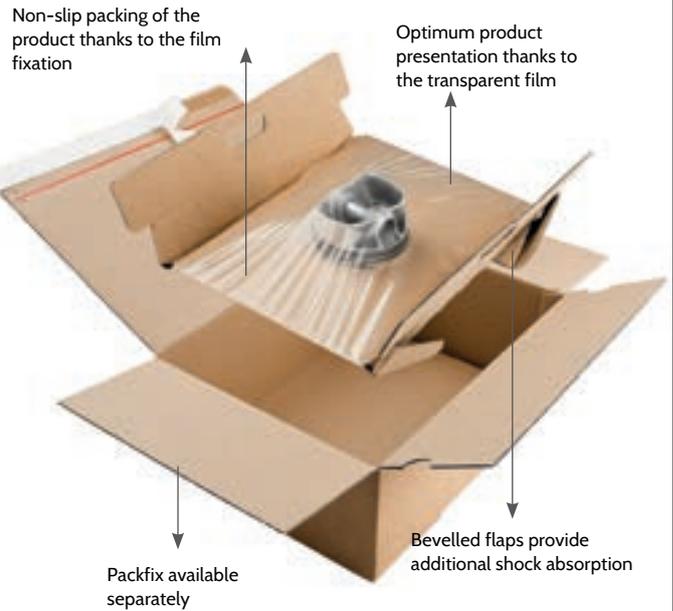
## Two parts for a brilliant solution



- The flexible, two-piece all-rounder
- Corrugated die-cut packaging with 60 micron LDPE special film for securing shipped goods
- Variable filling in length, width and height thanks to the flexible retention film
- Extremely stretchable LDPE special film
- Suitable outer packaging in standard range

Please send us your enquiry for any prints, special sizes and special orders.

### Two-part retention packaging: Multisnap with outer packaging



### ALL SIZES AT A GLANCE:

Item No.	max. Pack sizes (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality	Fitting shipping packaging	Internal dimensions shipping packaging
MS200	122 x 81 x 75	20 / 4080	46 / 208	120 x 80 x 178	no	1.40-D-27	PF20	213 x 153 x 109
MS250	139 x 88 x 46	20 / 5440	40 / 238	120 x 80 x 178	no	1.40-B-27	PF30	230 x 160 x 80
MS300	220 x 170 x 90	20 / 3360	120 / 229	128 x 80 x 177	yes	1.50-B-22	PF33	260 x 220 x 130
MS400	219 x 158 x 126	20 / 1360	141 / 211	120 x 80 x 178	no	1.40-B-27	PF41 / PF42	310 x 230 x 110/160
MS500	305 x 222 x 90	20 / 2240	188 / 239	120 x 93 x 177	yes	1.50-B-22	PF50	345 x 256 x 130
MS600	299 x 215 x 144	20 / 840	220 / 184	123 x 80 x 179	yes	1.50-C-22	PF55	390 x 290 x 180
MS700	339 x 235 x 164	20 / 840	266 / 223	136 x 80 x 179	yes	1.50-C-22	PF70	430 x 310 x 200
MS9500	170 x 256 x 74	20 / 1440	104 / 170	120 x 89 x 118	yes	2.40-EB-22	UKMS9500	267 x 191 x 88
MS9600	263 x 161 x 60	20 / 960	170 / 183	120 x 86 x 118	yes	2.40-EB-22	UKMS9600	335 x 242 x 105
MS9700	385 x 216 x 49	20 / 480	249 / 140	120 x 80 x 118	no	2.40-EB-22	UKMS9700	457 x 310 x 98
MS9800	468 x 300 x 60	20 / 480	323 / 175	120 x 80 x 118	no	2.40-EB-22	UKMS9800	547 x 422 x 110

# Easysnap

## The perfect solution for particularly sensitive and heavy goods



- extreme product protection through membrane function
- corrugated cardboard die cut with glued special film
- packaged goods are freely suspended between two foils
- the extremely stretchable special film adapts to the product
- handling advantage due to the flat 4-point glued frame construction
- as a complete set with a suitable outer carton in the standard range

Please send us your enquiry for any prints, special sizes and special orders.



### ALL SIZES AT A GLANCE:

Item No.	max. Pack sizes (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality	Fitting shipping packaging	Internal dimensions shipping packaging
ES100	138 x 108 x 58	20 / 2400	66 / 178	120 x 81 x 150	yes	1.50-B-22	PF26	210 x 180 x 130
ES300	188 x 148 x 58	20 / 1960	81 / 179	120 x 80 x 177	no	1.50-B-22	PF33	260 x 220 x 130
MB350	248 x 161 x 60	20 / 880	153 / 155	120 x 80 x 173	no	1.50-C-22	PF35	305 x 215 x 140-220
MB400	263 x 183 x 33-72	20 / 1760	98 / 192	121 x 84 x 173	yes	1.50-C-22	PF40	310 x 230 x 81-160
ES500	273 x 174 x 57	20 / 1680	100 / 188	120 x 80 x 177	no	1.50-B-22	PF50	345 x 256 x 130
MB700	421 x 301 x 93	20 / 880	169 / 169	120 x 81 x 173	yes	1.50-C-22	PF70	430 x 310 x 200
ES9500	358 x 165 x 112	20 / 480	308 / 168	120 x 88 x 171	yes	2.50-BC-21	UKES9500	485 x 292 x 240
ES9600	383 x 298 x 137	15 / 240	428 / 123	120 x 80 x 169	no	2.50-BC-21	UKES9600	535 x 450 x 290
ES9700	428 x 343 x 192	15 / 240	826 / 218	120 x 89 x 178	yes	2.90-BC-22	UKES9700	635 x 550 x 400
ES9800	529 x 429 x 192	10 / 240	1039 / 269	120 x 87 x 178	yes	2.90-BC-22	UKES9800	736 x 636 x 400

# Lapsnap 19

## Safety in capital letters



- The safe retention packaging for netbooks and laptops with integrated compartment for accessories
- Corrugated cardboard die-cut insert with attached 80 micron LDPE retention film for the retention of 17"/19" laptops
- Integrated compartment for accessories, delivered flat
- Matching outer packaging: Item "UKLS12" in standard range
- Variable filling in length, width and height thanks to the flexible film fixation
- Accessories compartment integrated in the UKLS outer packaging
- Extremely stretchable LDPE special film

### Lapsnap 2-part fixation packaging with outer box

Bevelled flaps provide added shock absorption

Secure retention thanks to the extremely stretchable LDPE special film

Folding down the side flaps creates two practical components for accessories

Outer box available separately



Please send us your enquiry for any prints, special sizes and special orders.

### ALL SIZES AT A GLANCE:

Item No.	max. Pack sizes (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality	Fitting shipping packaging	Internal dimensions shipping packaging
LS19	17"-19" Laptops	10 / 800	275 / 240	120 x 80 x 179	no	2.40-EB-22	UKLS19	548 x 358 x 120



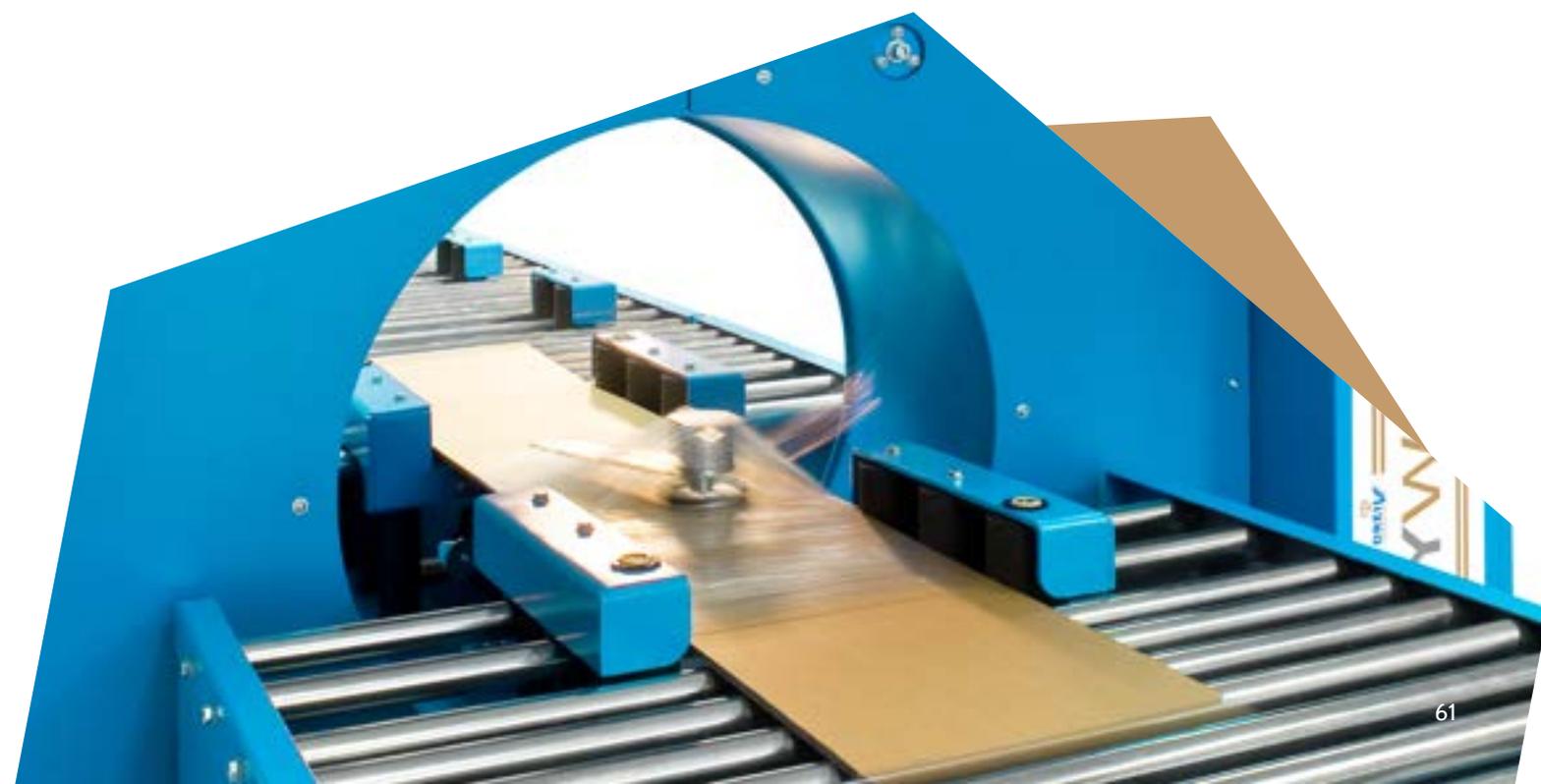
# The wrapping machine EASYWRAP by DREI V – perfect packaging protection, reduced packaging costs

As an alternative to the tried-and-tested DREI V retention packaging Quicksnap, Multisnap and Easysnap, DREI V offers you another professional and economical solution with the tray wrapping machine **EASYWRAP**. **EASYWRAP** handles the automated packaging of packaged goods with a wide variety of product dimensions while at the same time reducing packaging diversity. Whether light or heavy products, small or large series: The combination of matching tray and perfect fixation by means of a special film made of polyurethane creates an optimal protective packaging, which protects the packaged goods at the same time as well as optimally protects against damage on the shipping route. Additional filling and upholstery fabrics are not needed and can be completely saved.

**When do you optimize your packing process with EASYWRAP from DREI V?**

## HOW EASYWRAP WORKS

The packaged goods are placed on a suitable tray. Depending on the contour, size, weight and variance of the packaged goods, standardized or specially designed trays are used. In the central part of the horizontal wrapping machine, the tray and the packaged goods are wrapped with a special film made of polyurethane at high speed and reliably. Firmly fixed and additionally sprung depending on the tray construction, the packaged goods are optimally protected in a fitting outer packaging.



## THE WRAPPING MACHINE AND THE AUTOMATION LEVEL

The **EASYWRAP** is a technically mature, robust and extremely reliable film **wrapping machine**, which is successfully used in many applications. Even the two basic versions with ring diameters of 600 and 900 mm offer extremely high comfort including storage of up to 20 packing programs. In addition, a variety of optional extras are available that allow for customization tailored to the specific application and operational infrastructure. These include, for example, a fully automatic tray detection and the integration in the packing line with automated feed and discharge after the wrapping process.

### YOUR BENEFITS WITH EASYWRAP AT A GLANCE

Optimal product protection, even for heavy and sensitive packaged goods
Environmentally friendly packaging despite film, as there are no further filling materials
For chaotically changing goods also with high variance (Weight, contour, dimension)
Efficient packaging with consistent packing speed
Reduced packaging diversity / high degree of standardization of the trays
Reduction of packaging and logistics costs
Low energy consumption
Low noise operation
Compact and space-saving design
Easy integration in packaging lines



- Product protection
- Cost savings
- Packaging efficiency
- Packaging quality
- Packaging optics

# Paper retention packaging

## The most environmentally friendly method for shipping highly delicate products

**Environmentally friendly paper retention packaging**, wholly developed by DREI V, is a further development of film retention packaging.

### OPTIMAL PROTECTION AND PERFECT HANDLING

The first product in this group is the PAPERPAC, which is already widely used in one of the four standard versions or as a solution specifically tailored to its application. In this shipping solution made of sturdy corrugated cardboard with a protruding protective edge, delicate products of various dimensions quickly find their place. Thanks to an environmentally friendly paper insert glued into the corrugated cardboard box, the delicate packaged goods are securely fixed and provided with shock-proof protection. With the help of their optimised design, the self-adhesive packaging can be quickly set up, rapidly sealed after simple fixing of the goods to be shipped, and thanks to the integrated tear-open aid, it can also be opened without tools.



### ECOLOGICALLY SENSIBLE

Thanks to the combination of corrugated board and a paper insert, the shipping packaging is 100% recyclable with waste paper. The flexible paper insert optimally covers and protects the packaged goods and makes the insertion of further filling material such as bubble wrap, foam or paper, unnecessary. Using paper retention packaging saves a significant amount of primary raw materials and makes an important contribution to the protection of the environment.

### CLIMATE-NEUTRAL AND AWARD-WINNING

With the innovative and environmentally friendly prototype paper retention packaging **ECOSNAP**, DREI V GmbH won the German Packaging Award 2022 in the category "Logistics and Material Flow" and the WorldStar Award 2023 in the category "E-Commerce". The **ECOSNAP** is produced climate neutrally from 100 % renewable raw materials. The packaged goods can be fixed in place using an innovative tensioning technique with soda crepe paper. Guaranteed maximum product protection without any film or additional filling material. The environmentally friendly closure construction ensures maximum security without the use of adhesives.



WORLDSTAR  
WINNER 2023



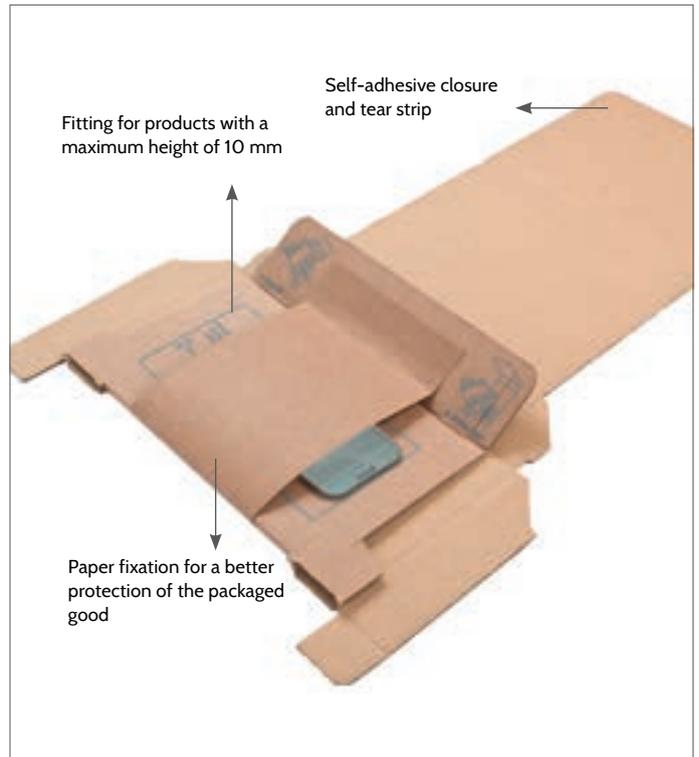
# Papersnap

On request individual design also for products with fixed heights up to 180 mm or variable heights



- Optimal product protection by fixing the packaged goods by means of a tension mechanism
- Tension element made of environmentally friendly kraft paper
- Lightning fast handling
- Safe and quick closing by self-adhesive closure
- Comfortable opening thanks to tear strip

Please send us your enquiry for any prints, special sizes and special orders.

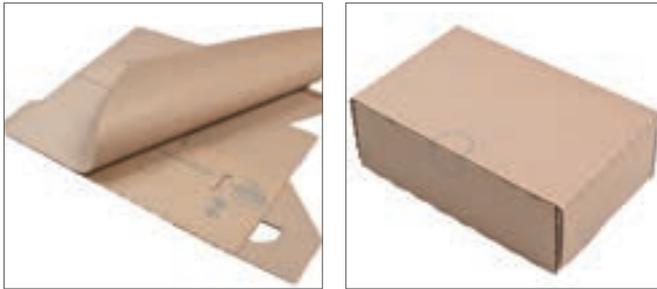


## ALL SIZES AT A GLANCE:

Item No.	Pack sizes (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
PS20	175 x 80 x 5-10	25 / 1725	167 / 307	120 x 80 x 174	no	1.31-B-21

# Safebox

## Anti-theft protected with integrated product fixation made of paper



- Lightning fast handling
- Extremely high stability
- Environmentally friendly paper insert
- Double product protection thanks to padding and fixation
- Safe and fast closing by self-adhesive closure
- Comfortable opening thanks to tear-strip
- Highest anti-theft protection thanks to self-adhesive overlapping side flaps
- can be used for variable product sizes



Please send us your enquiry for any prints, special sizes and special orders.

### ALL SIZES AT A GLANCE:

Item No.	Pack sizes (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
SB30	205 x 153 x 80	25 / 1.800	93 / 187	120 x 80 x 70	no	1.20-E-21

# Paperpac

## Because paper can do so much more



- Fixed paper insert secures and pads item
- Die-cut corrugated cardboard packaging with attached paper insert
- Self-adhesive closure and tear strip
- Quick and easy packing
- Suitable for various product sizes
- All-round edge protection
- 2nd self-adhesive security closure may also be used for returns
- Paper insert in natural brown, 100 g



We are  
the inventor of  
shipping packaging

**THE ORIGINAL**

- with self-adhesive  
closure!

Please send us your enquiry for any prints, special sizes and special orders.

### ALL SIZES AT A GLANCE:

Item No.	Internal dimensions (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
PP15	160 x 120 x 41	25 / 4500	118 / 550	120 x 80 x 123	no	1.20-E-21
PP20	160 x 120 x 63	25 / 3750	138 / 538	120 x 80 x 123	no	1.20-E-21
PP25	230 x 150 x 41	25 / 3200	164 / 546	120 x 80 x 122	no	1.20-E-21
PP35	230 x 150 x 63	25 / 2500	81 / 223	120 x 80 x 110	no	1.20-E-21

## Selection of postage-optimised DREI V retention packaging

Item No.	Suitable for (usable size)	Ext. dimensions (L x W x H in mm)	Pc in gr	Postage-optimised for*
<b>Quicksnap</b>				
QS25		228 x 142 x 49	103	Maxi letter/Warenpost
<b>Minipac</b>				
MP10		235 x 122 x 20	37	Large letter/Maxi letter/Warenpost
<b>Papersnap</b>				
PS20		200 x 145 x 39	167	Maxi letter/Warenpost
<b>Paperpac</b>				
PP15		166 x 132 x 49	118	Maxi letter/Warenpost
PP25		236 x 162 x 49	164	Maxi letter/Warenpost

\* Dimensions dependent on filling height / weight

# For optimal goods security, it pays to be alert

## For optimal goods security, it pays to be alert.

Products for securing pallets and goods have to do one thing above all else: be fixed securely and visibly in place. Just like the DREI V stacking protection display that can be placed clearly on the top of the pallet to hinder the stacking of further pallets. The prefabricated die-cut holes enable the stacking protection display to be quickly and securely fixed in place with strapping bands or by means of the self-adhesive for attachment to the upper pallet surface.

- Easy set-up
- Secure fixing
- Directly in field of vision
- Pre-fabricated die-cut holes



**STACKING PROTECTION DISPLAY**

# Stacking protection display Just to make sure



- Clearly warns against the stacking of pallets
- Self-adhesive for fixation on upper pallet surface
- Item length: 600 mm  
2 perforations at 200 mm and 400 mm for separation into 3 stacking protection displays
- The stacking protection displays can be clearly and visibly attached to the upper pallet surface to hinder the stacking of pallets

Please send us your enquiry for any prints, special sizes and special orders.

## ALL SIZES AT A GLANCE:

Item No.	Creasing dimensions (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
SD200	200 x 95 x 95	25 / 4000	91 / 272	125 x 80 x 180	yes	1.20-E-30

# Strong calendar packaging for your year-end business

## Tailored CALENDAR PACKAGING for DIN formats

What does the perfect calendar packaging have to do? - That's right: Bring the calendar safely and inexpensively to the recipient. And, better still, be postage-optimised. That's why the KALENDARPAC, in proven DREI V quality, comes in three common DIN formats. Of course, picture books can also be sent with this product. Bring on the business for the next year-end.

- Protected edges for safe shipping
- Suitable filling height for spiral bound calendars
- Two colours to choose from
- Resealable
- Ideal for shipping and storage



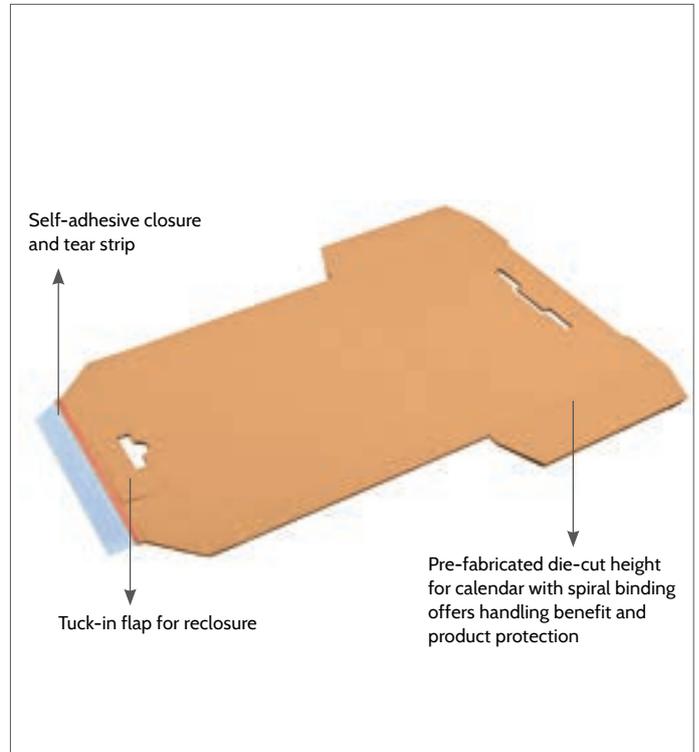
**KALENDARPAC**

# Kalenderpac

## For the 3 most common DIN formats



- Stable kraftliner quality for perfect product protection
- Optimal protection, even for calendars with spiral binding
- Handling advantage thanks to the fixed height
- Easy to open with tear strip
- Integrated tuck-in flap for reuse and postage-optimised shipping as consignment
- No oversize surcharge thanks to runway compatibility



Please send us your enquiry for any prints, special sizes and special orders.

### ALL SIZES AT A GLANCE:

Item No.	Internal dimensions (L x W x H in mm)	Package / Pallet Bundle / Pallet	Weight per piece (gr) / Weight per pallet (kg)	Pallet sizes (L x W x H in cm)	overbuilt	Quality
KP120	305 x 218 x 10	25 / 2300	81 / 206	120 x 87 x 176	yes	1.31-B-21
KP130	428 x 305 x 10	25 / 1150	145 / 187	120 x 80 x 176	no	1.31-B-21
KP140	602 x 428 x 10	25 / 575	265 / 172	120 x 80 x 176	no	1.31-B-21

## Selection of postage-optimised DREI V die-cast packaging / calendar packaging

Item No.	Suitable for (usable size)	Ext. dimensions (L x W x H in mm)	Pc in gr	Postage-optimised for*
<b>Kalenderpac</b>				
KP120	A4	311 x 224 x 21	81	Maxi letter/Warenpost

\* Dimensions dependent on filling height / weight

# DREI V GmbH timeline

- 1982** Founding of DREI V GmbH packaging, packing, posting
- 1986** Beginning of production of mailers and book packaging with self-adhesive technology
- 1988** Submission and approval of the first DREI V GmbH patent
- 1992** Beginning of packaging design using CAD
- 1996** Extension of the administrative and production facility to the entire company building and the site at Weißenfelder Straße No. 4
- 1997** Commissioning of the first in-house gluing machine SUSIMAT (named after the company founder's daughter, Susanne).
- 1999** Acquisition of a IBERICA flat-bed die-cutter for solid board
- 2002** Commissioning of the second in-house gluing machine TINAMAT (named after another daughter of the company founder, Kristina)
- 2004** Extension of the production site to parts of the building at Weißenfelder Straße No. 2
- 2004** Extension of the product range with film retention packaging; acquisition and partial remodeling of a film gluing machine
- 2005** Expansion of the machine park with a new cutting plotter for patterning and a folding-gluing machine (here: partial conversion)
- 2006** Commissioning of a drop-test studio
- 2006** Takeover of the entire production building and site at Weißenfelder Straße No. 2 - 4
- 2006** Purchase of two flat-bed die-cutters for corrugated board including pre-feeder, flexographic printing units and panel separators
- 2010** Conversion of the film gluing machine for the processing of PU film
- 2012** Construction of a gluing machine for the production of the globally innovative ECOSERIE; FSC certification
- 2014** Construction of another gluing machine for the production of ECOSERIE and PAPERPAC
- 2015** Installation of a fully automated removal system behind the gluing machines
- 2016** Commissioning of a new flatbed die-cutter:  
Bobst Autoplaten SPO1600
- 2017** Commissioning of another new flatbed die-cutter:  
Bobst Autoplaten SPO1600;  
Certification according to ISO 9001 and ISO 14001;
- 2018** Conception and issue of a complete DREI V product catalogue in German and English
- 2019** Commissioning of a fully automated palletizing system with two packing robots
- 2019** Conversion of the complete range to FSC quality
- 2022** 40th anniversary of the founding of DREI V GmbH



# Individual packaging from a single source

**If you want something done well, do it yourself.**

That's why all DREI V solid and corrugated cardboard products are developed, realised and also manufactured in-house. We even go as far as manufacturing and optimising some of our own high-performance machines for the manufacture of our shipping products. For example, our angle gluing machines, which achieve a new dimension in speed and precision through innovative technology.

- Tailored for your specific products
- Manufactured with the special know-how of our specialists
- Packaging solutions in the best DREI V-quality
- Individual, yet still at fair prices
- We are only satisfied when you are





[www.drei-v.de](http://www.drei-v.de): Here, you can configure your individual shipping packaging.

## SPECIAL IDEAS ALSO NEED SPECIAL SOLUTIONS

**Our customised packaging solutions are as individual as your packaged goods.**

With a team of creative and experienced packaging designers, we go above and beyond, constantly working to develop innovative products that set future standards in the marketplace.

The individual consultation of our customers and our aspiration to develop the optimal solution for each packaging task also form the basis of our competence as a solution provider.

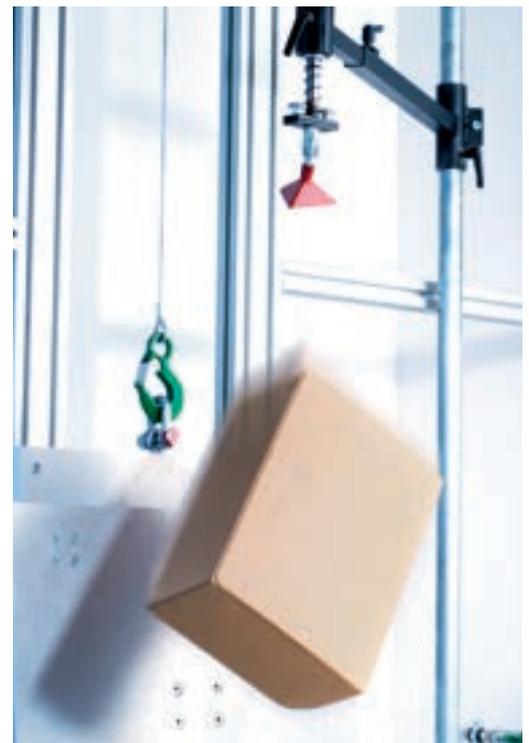
## FROM AN INITIAL IDEA TO SERIES PRODUCTION



Design and CAD construction



Sampling and prototyping



Test and approval in our own drop-test laboratory

Based on your product, your needs and priorities, we develop and produce tailor-made packaging for you.

### THE POSSIBILITIES OF INDIVIDUALISATION ARE VERSATILE AND CAN BE COMBINED:

- Special packaging construction for optimum protection of the packaging material or perfect handling
- Integration of additional convenience features for the recipient (e.g. return shipping suitability)
- An appealing look which makes for good advertising thanks to individual printing
- Consideration of economic (e.g. postage optimisation) as well as ecological aspects (e.g. use of FSC raw materials)



#### DID YOU KNOW ...

that DREI V develops, realises and manufactures all solid and corrugated board products in-house?



SOME INDIVIDUAL SAMPLES OF DREI V PACKAGING

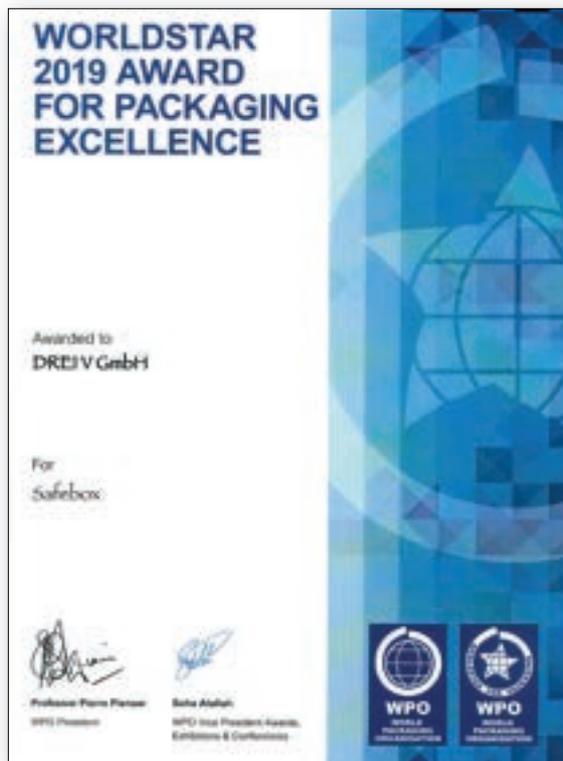


# DREI V products have been highly prized for many years



**DID YOU KNOW ...**

... that for our DREI V team, our enthusiastic customers are still the biggest prize of all?



# The flexographic printing process

The flexographic printing process is overwhelmingly used in the production of corrugated board packaging. Flexographic printing is a high-pressure process. The printing areas are positioned higher than the non-printing areas and are dyed with printing ink. This is then transferred directly to the corrugated board. The flexographic inks are advanced "aniline" inks and environmentally friendly. They are mainly diluted with water and printed in a liquid state.

## EFFECTS AND TRANSPARENCIES

Due to the small screen ruling in flexographic printing, effects and transparencies such as drop shadows and fill patterns should be completely avoided. An 18 screen is used. A border contour is recommended to catch the screen dots in colour gradients and transparencies and thus counteract "bleeding".

## FLEXO-SPECIFIC RULES

Line width positive:

(dark line on light background): min. 0.20 mm, font size: min. 6 pt, with serifs 8 pt

Negative line width:

(light line on dark background): min. 0.30 mm, font size: min 8 pt, with serifs 10 pt.

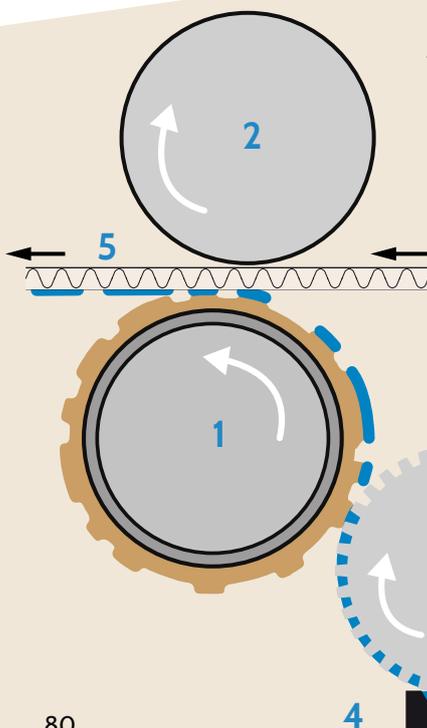
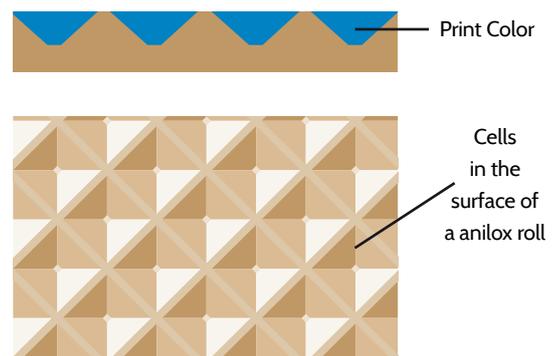
Minimum distance to crease line / edge : 5 mm, trapping: min. 0,75 mm with 2 colours,

Variation from colour to colour approx. 0.5 mm, from colour to punch outline up to approx. 3 mm.

positive (the background is the corrugated board)

negative (the background is printed)

## Anilox roll



The extremely mobile paint is transformed from a paint container into a paint transfer system – the printing unit – by means of a paint pump and is transferred there onto the surfaces of the cliché, a relief-like plastic plate.

- 1 Form cylinder with printing form (cliché)
- 2 Impression cylinder
- 3 Anilox roller
- 4 Ink supply (chambered doctor blade system)
- 5 Corrugated cardboard sheet.

# The offset printing process

The offset printing process is predominantly used in packaging production which requires high print qualities. It is mainly used for packaging with a smooth surface structure, such as solid board (cardboard) or fine and finest corrugated board (E, F or N-wall).

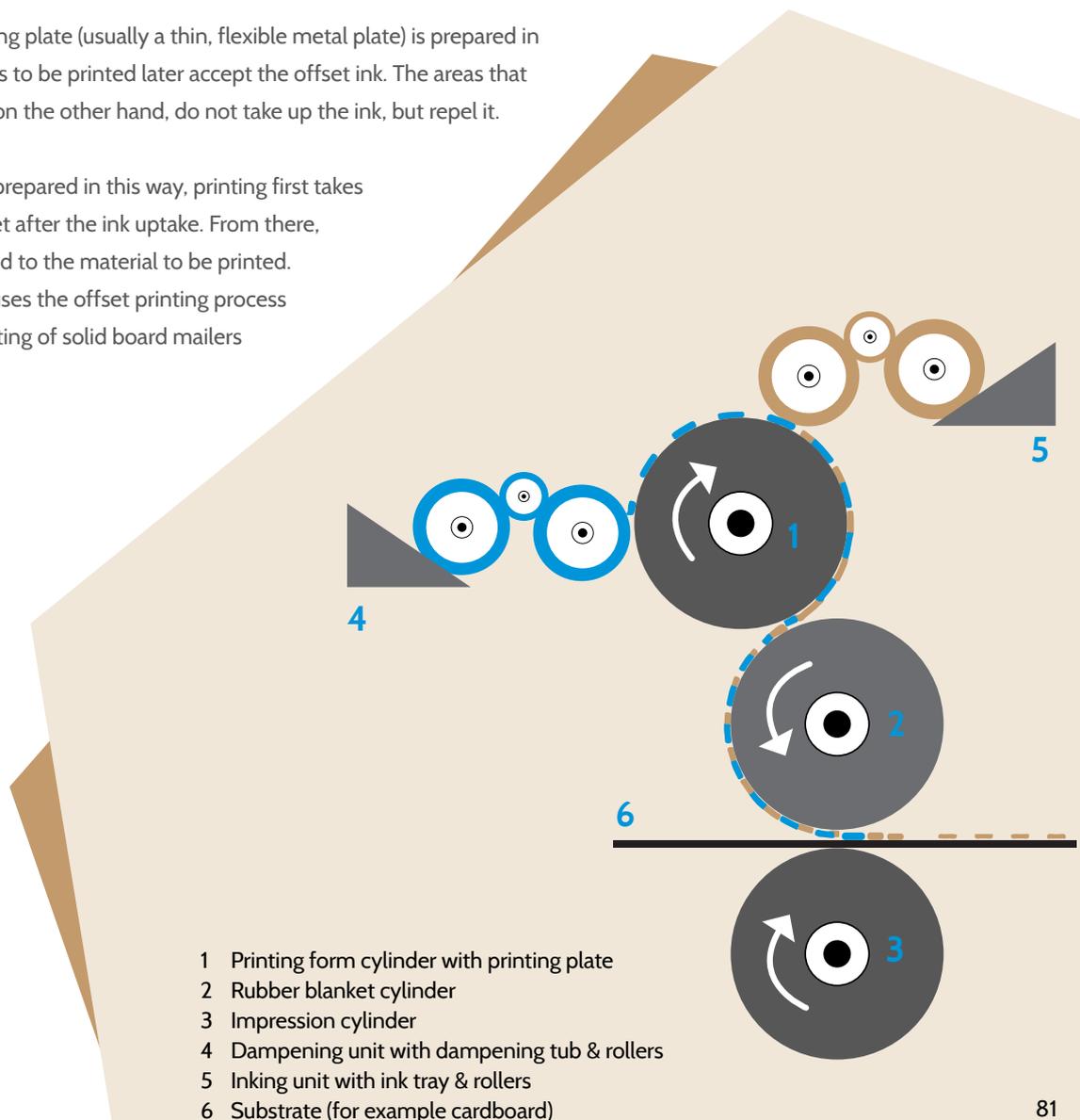
Offset is a planographic printing process. The printing and non-printing parts of the printing form lie on one level, so they are neither raised nor deepened, as in flexographic printing.

## IN THE OFFSET PRINTING PROCEDURE, THE FOLLOWING QUALITY IS OBTAINED:

Images	300 dpi at 100% size
Logos (line drawings)	120 dpi at 100% size

The surface of the printing plate (usually a thin, flexible metal plate) is prepared in such a way that the areas to be printed later accept the offset ink. The areas that do not require printing, on the other hand, do not take up the ink, but repel it.

From the printing form prepared in this way, printing first takes place on a rubber blanket after the ink uptake. From there, the ink is then transferred to the material to be printed. DREI V predominantly uses the offset printing process for the high-quality printing of solid board mailers with up to 6 inks.



PRINTING EXAMPLES OF THE FLEXOGRAPHIC PRINTING PROCESS:



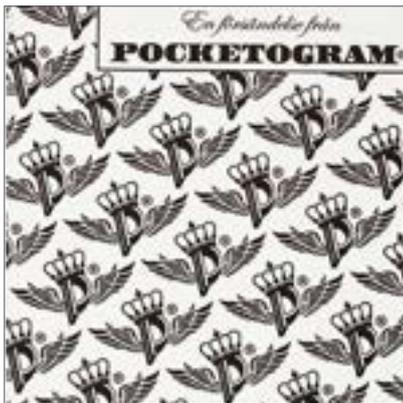
Monocolour flexographic outer print



Two-colour precision flexo print (black and pink on a white outer cover)



Monocolour flexo inside print. White writing negatively recessed (interior surface white)



Monochrome flexo print in spread or continuous print

PRINTING EXAMPLES OF OFFSET PRINTING PROCESS:



Monocolour full-surface offset print on solid white board. White writing negatively recessed

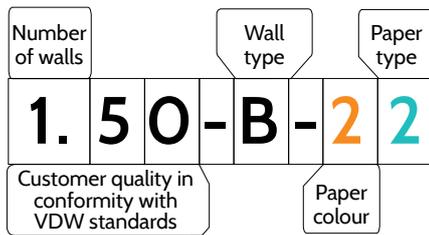


6-colour precision offset print

# DREI V Corrugated Board Material Key

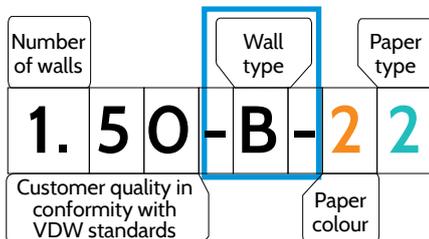
The number of different material qualities for corrugated board packaging is barely manageable, even for professionals in the packaging field. Theoretically, there is a multitude of potentially usable material qualities for each type of packaging, from which the suitable variety must be selected depending on a variety of factors. These include, for example, purpose, product protection,

printability, total weight, feel, appearance, colour, availability, environmental compatibility and value for money. In addition, with corrugated board manufacturers and downstream packaging manufacturers, the different technical conditions provide for an additional variety of offerings or, in some cases, significant differences in the price and availability of the same corrugated board quality.

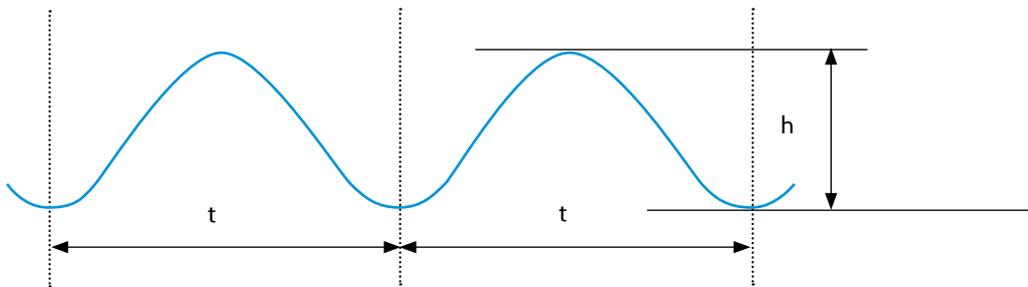


The 35 years of experience of DREI V guarantees the use of the best material type for each shipping package. The DREI V material or grade key has been developed in order to provide information on the concrete characteristics of the selected type in as simple a way as possible and to enable comparisons.

## THE WALL TYPE



## THE SINE WAVE IS AT THE HEART OF CORRUGATED BOARD



In order to determine the wall type, the wall pitch ( $t$ ) and the wall height ( $h$ ) must be measured. The wall pitch ( $t$ ) is measured between two wall peaks, the wall height ( $h$ ) is measured between the wall trough and wall tip.

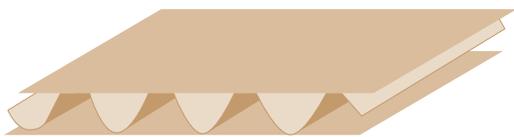
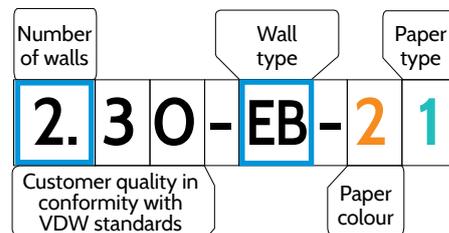
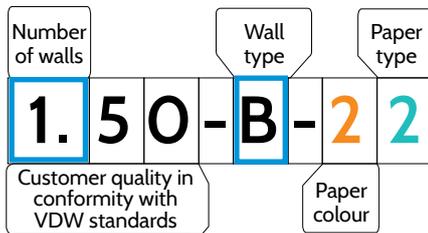
Wall type	Wall height in mm	Wall distribution (t) in mm
G	< 0.6	≤ 1.8
F	≥ 0.6 to < 1.0	> 1.8 to ≤ 2.6
E	≥ 1.0 to < 1.9	> 2.6 to ≤ 3.5
D	≥ 1.9 to < 2.2	> 3.5 to ≤ 4.8
B	≥ 2.2 to < 3.1	> 4.8 to ≤ 6.5
C	≥ 3.1 to < 4.0	> 6.5 to ≤ 7.9
A	≥ 4.0 to < 5.0	> 7.9 to ≤ 10.0
K	≥ 5.0	> 10.0

Depending on the dimensions of wall height and division, the adjacent wall types are differentiated on the basis of VDW standards. Wall height and pitch must both be reached at the same time in order for the wall profile to be classified. In terms of language, terms such as coarse wall (A wave), medium wall (C wall), fine wall (B and D-wall), microwall (E-wall) and mini-wall (G- and N-wall) have been created to enable clearer distinctions.

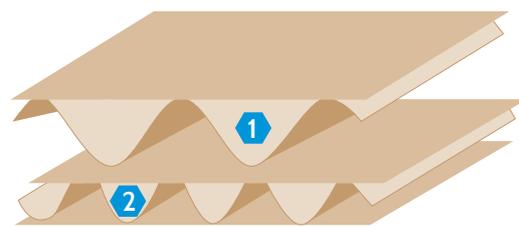
Currently, DREI V uses the following wall types:

- Single-wall: E, D, B, C
- Double-wall: E/B, E/E, B/C

### SINGLE-WALL AND DOUBLE-WALL CORRUGATED BOARD



If the wall is glued on both sides with a smooth paper web, single-walled corrugated board (double-faced corrugated board or single-wall corrugated board) is created.



Two board webs and three smooth paper webs produce double-wall corrugated board. The smooth, middle web is also called the intermediate web. The board webs can consist of different types of corrugations, as in the example of a large wall (1) and a small wall (2).

### CONSTRUCTION AND COMPOSITION OF CORRUGATED BOARD: TYPE OF PAPER, COLOUR AND BASIS WEIGHT



Different types of paper are used for the upper surface layer (outer surface), the lower surface layer (inner surface) and the wall itself.

**WS = wall material:**

The wall material is the inner layer made entirely of recycled paper with a high content of short fibres. The surface is dull and slightly rough.

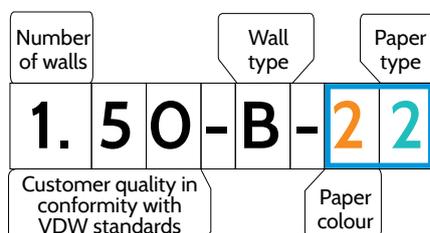
**KL = Kraftliner:**

Kraftliner is a type of paper consisting of bleached or unbleached sulphate pulp. Kraftliner is about 80% virgin cellulose with a high content of long fibres. The maximum amount of recycled content is 20%. The surface is smooth, well-sealed and thus compact. This results in optimum strength values, high flexural stiffness, good stacking compression stability, high puncture resistance and tear resistance. Strength and relative resistance to moisture mean that kraftliner paper is often used in the outer cover of corrugated board.

**TL = Testliner:**

Testliner paper is made from recycled paper, the surface is dull and slightly rough. Testliner is usually used as an inner layer and in double walls as a middle layer. Testliner has about 80% of the crush strength and flexural stiffness of kraftliner at the same grammage but is not quite as resistant to moisture.

COLOUR	PAPER TYPE
0 = gr. / gr.	0 = TL / TL
1 = br. / gr.	1 = KL / TL
2 = br. / br.	2 = KL / KL
3 = w. / br.	3 = WTc / TL
4 = w. / w.	4 = WTc / KL
5 = br. / w.	5 = KLE / TL
6 = bl. / bl.	6 = KLE / KLE
	7 = KL / KLE

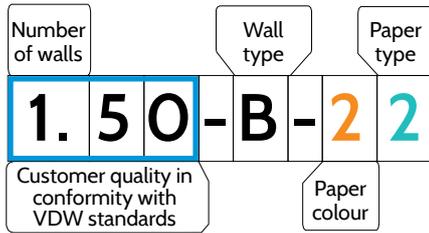


The paper type and paper colours of the outer and inner surfaces are clearly defined by the last two digits of the DREI V type codes.

In addition to the choice of paper type and colour, the grammage of the paper used is a decisive criterion for the composition of the corrugated board. The grammage per square metre of corrugated board is determined in g/m<sup>2</sup>. It is calculated by adding the paper layer weights, whereby the surface paper weight of the walled layer, depending on the type of corrugation, must be multiplied by a take-up factor (here in the example: 1.3). The composition of the corrugated board for single-walled corrugated board is thus comprehensively determined in the example.

Outer surface	Wall	Inner surface	Explanation
100 TL b	80 Ws E (incl. take-up factor: 80 g/m <sup>2</sup> x 1,3 = 104 g/m <sup>2</sup> )	100 TL b	Grammage approx. 304 g/m <sup>2</sup> , E-wall design, outer surface testliner brown, inner surface testliner brown
135 KL b	90 Ws E (incl. take-up factor: 90 g/m <sup>2</sup> x 1,3 = 117 g/m <sup>2</sup> )	135 TL w	Grammage approx. 387 g/m <sup>2</sup> , E-wall design, outer surface kraftliner brown, inner surface testliner white

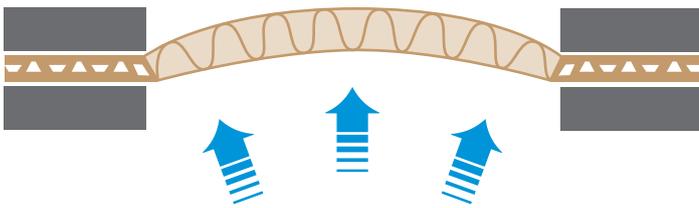
**MATERIAL QUALITY IN CONFORMITY WITH VDW (GERMAN CORRUGATED BOARD ASSOCIATION) STANDARDS**



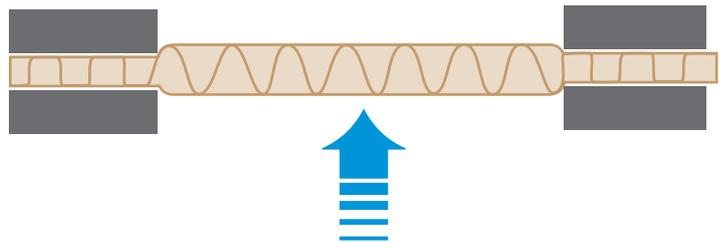
Based on the composition of the corrugated board with the almost innumerable possible combinations of outer surface, wall and inner surface, no reliable statement can be made about the actual quality of the corrugated board.

In order to make comparisons of the actual quality of the corrugated board grades used, the VDW (German Corrugated Board Association) has determined qualities on the basis of standardised strength values. The quality of the type is determined by achieving defined values of **burst strength**, **puncture resistance** and **edge crush resistance**.

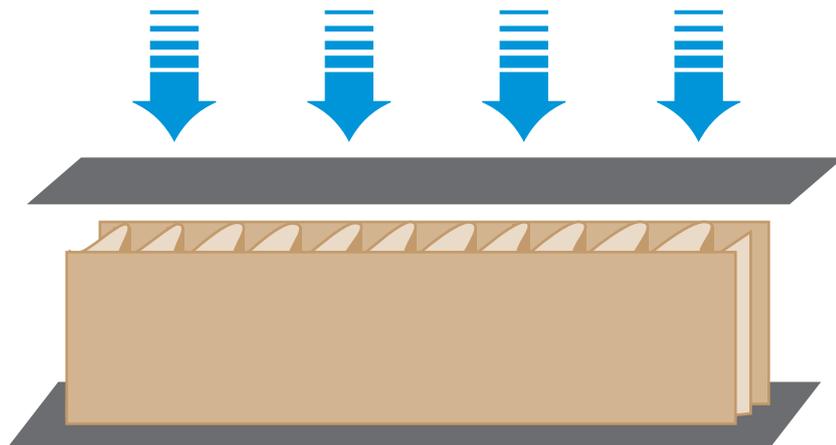
**BURST STRENGTH (kPa)**



**PUNCTURE RESISTANCE (J)**



**EDGE CRUSH RESISTANCE (kN/m)**



	Type	Burst strength	Puncture resistance	Edge crush resistance
		kPa	J	kN/m
(Only for B, C, A, K)	1.01	-	2.5	3.5
	1.02	-	3.0	4.0
	1.03	-	3.5	4.5
	1.04	-	4.0	5.5
	1.05	-	4.5	6.5
Single-wall	1.10	540	2.5	3.5
	1.20	770	3.0	4.0
	1.30	1000	3.5	4.5
	1.40	1200	4.0	5.5
	1.50	1450	4.5	6.5
Multiple-wall	2.02	-	5.5	6.5
	2.03	-	6.0	7.0
	2.04	-	6.5	7.5
	2.05	-	7.0	8.5
	2.06	-	7.5	9.0
	2.20	770	5.5	6.5
	2.30	1000	6.0	7.0
	2.40	1200	6.5	8.0
	2.50	1450	7.5	8.5
	2.60	1650	8.5	9.0
	2.70	2000	9.5	9.5
	2.80	-	11.0	12.0
	2.90	-	13.0	14.0
	2.91	-	16.0	16.0
	2.92	-	21.0	18.0
	2.95	-	24.0	21.0
2.96	-	27.0	24.0	

### THE QUALITY CLASSIFICATION OF THE DREI V TYPES ARE BASED ON THE VDW TYPE CLASSIFICATION:

The classification and therefore the naming of a type depend exclusively on whether the strength values given in the table are fulfilled, regardless of the composition and the grammage of the paper types used.

Or: Corrugated boards with different compositions can have the same VDW name, provided they have comparable strength values.

### TYPE EXAMPLES IN CONFORMITY WITH VDW STANDARDS

VDW REFERENCE	Manufacturer quality indicator		Outer surface	Wall	Inner surface
	Quality	Corrugated Board type indicator			
1.02 E	brown / brown	1.02-E-20	100 TL br.	80 WS E	100 TL b
1.30 B	white / brown	1.31-B-31	120 KL b	125 WS B	120 TL b
2.50 EE	white / white	2.50-EE-41	135 KL w	90 WS E/90 WS/ 90 WS E	135 TL w

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### Beehives on the DREI V premises

Since 2019, there have been a total of 6 beehives with lots of busy bees on the extensive company premises of DREI V GmbH in the east of Munich. We are not saving the world with this, but we are setting a visible sign against the threatening death of insects and bees. From the professional organisation of a bee colony, we can even gain valuable insights for our own management, be it the division of labour, the climate in the hive or the organisation and communication among each other. Honey bees have existed for over 40 million years and have been practising "agile management" ever since - we take a leaf out of their book.