



PACKAGING

FOAMplus[®] IS
HIGH-PRECISION PACKAGING,
LIGHT AS A FEATHER.

Storopack – SPECIALIST IN PROTECTIVE PACKAGING	3
FOAMplus® OVERVIEW	4
CONSULTING AND SERVICE	6
Storopack PROCESS	8
FOUR DIMENSIONS OF PACKAGING	9
PACKAGING SYSTEMS AND APPLICATIONS	10
FOAMplus® Bag Packer Systems	12
FOAMplus® Hand Packer ²	14
FOAMplus® Remote Batcher System	16
FOAMplus® Premold	17
Working Comfort®	18
SMARTline Packing Stations	19
FOAMplus® FILM TYPES AND FOAMS	20
SUSTAINABILITY	24
CUSTOMER CASE STUDIES	26

As of: 2022

1874 Founded as a tannery

1959 Storopack Hans Reichenecker GmbH + Co. is founded; Production of technical molded parts made from Styropor®



72 locations

612 million Euros in revenue

2,310 employees



PERFECT PROTECTION MEANS BEING EQUIPPED FOR ANY SITUATION.

Storopack is a specialist in protective packaging. Our promise is to provide “Perfect Protective Packaging” to optimally protect every product while in transit. We think holistically, advising our customers on how to make the packaging process more efficient and, if desired, integrating tailored solutions. Our comprehensive range covers all of the requirements associated with optimal product protection. With 2,310 employees at certified production facilities and locations in 18 countries, we maintain a decentralized structure and are always in direct vicinity to our customers.

OUR STRENGTHS – YOUR ADVANTAGE:

- ▶ OWNER-MANAGED FAMILY COMPANY
- ▶ LOCAL CONTACTS
- ▶ INTERNATIONAL FOCUS
- ▶ RELIABILITY
- ▶ SERVICE AND CUSTOMIZED ADVICE
- ▶ HIGH PRODUCT DIVERSITY
- ▶ CONTINUOUS IMPROVEMENT OF PACKAGING PROCESSES
- ▶ PROCESS OPTIMIZATION
- ▶ COMPLETE SOLUTIONS ALL FROM A SINGLE SOURCE
- ▶ TURN-KEY SOLUTIONS WITH AUTOMATION PROCESSES

▶ **Storopack image film:** www.storopack.com/perfect-protective-packaging

FOAMplus® IS HIGH-PRECISION PACKAGING, LIGHT AS A FEATHER.

Storopack's FOAMplus® foam packaging is a high-quality protective packaging solution that adapts to the contours of the product and protects your goods against possible transit damage due to impact shock and vibration. Whether they're heavy, fragile or awkward shapes FOAMplus® offers the protection required for your product. Made from expanded polyurethane, the high-quality packaging foam is resistant, robust and thanks to it being light weight, reduces transport costs.

With the FOAMplus® foam dispensing systems, protective foam packaging can be produced directly at the packing

station and placed into the carton. As the foam expands it molds to the contours of the product and encapsulates it in a highly versatile packaging medium. FOAMplus® is available in a range of densities to suit a product's weight and fragility. FOAMplus®, polyurethane foam packaging is an 'on demand' packaging solution that, when the two components mix together, will expand up to 260 times their liquid volume negating the necessity for large storage area's required for pre-fabricated packaging.

THE BENEFITS OF FOAMplus®

- ▶ EFFECTIVE: EXTREMELY IMPACT-RESISTANT, HIGH CUSHIONING
- ▶ SUPERIOR FOAM QUALITY: EQUAL CUSHIONING WITH LESS MATERIAL USED THAN ALTERNATIVE FOAM PACKAGING SYSTEMS
- ▶ SOURCE REDUCTION: HIGH YIELD RESULTS IN REDUCED OVERALL HANDLING
- ▶ ROBUST: EFFECTIVE FOR VERY HEAVY ARTICLES OR ITEMS WITH SHARP EDGES
- ▶ VERSATILE: ADAPTS TO THE CONTOURS OF THE PRODUCT DURING HARDENING
- ▶ UNIVERSAL: PROTECTS PRODUCTS OF ALMOST ALL DIMENSIONS, SHAPES AND WEIGHTS
- ▶ PROTECTIVE: VOID FILL, BLOCK AND BRACE OR CUSHION AS REQUIRED
- ▶ SPACE SAVING: ON-DEMAND SYSTEMS FOR MINIMUM STORAGE

FOAMplus® Packaging Bags



FOAMplus® Tubes



FOAMplus® Direct Injection



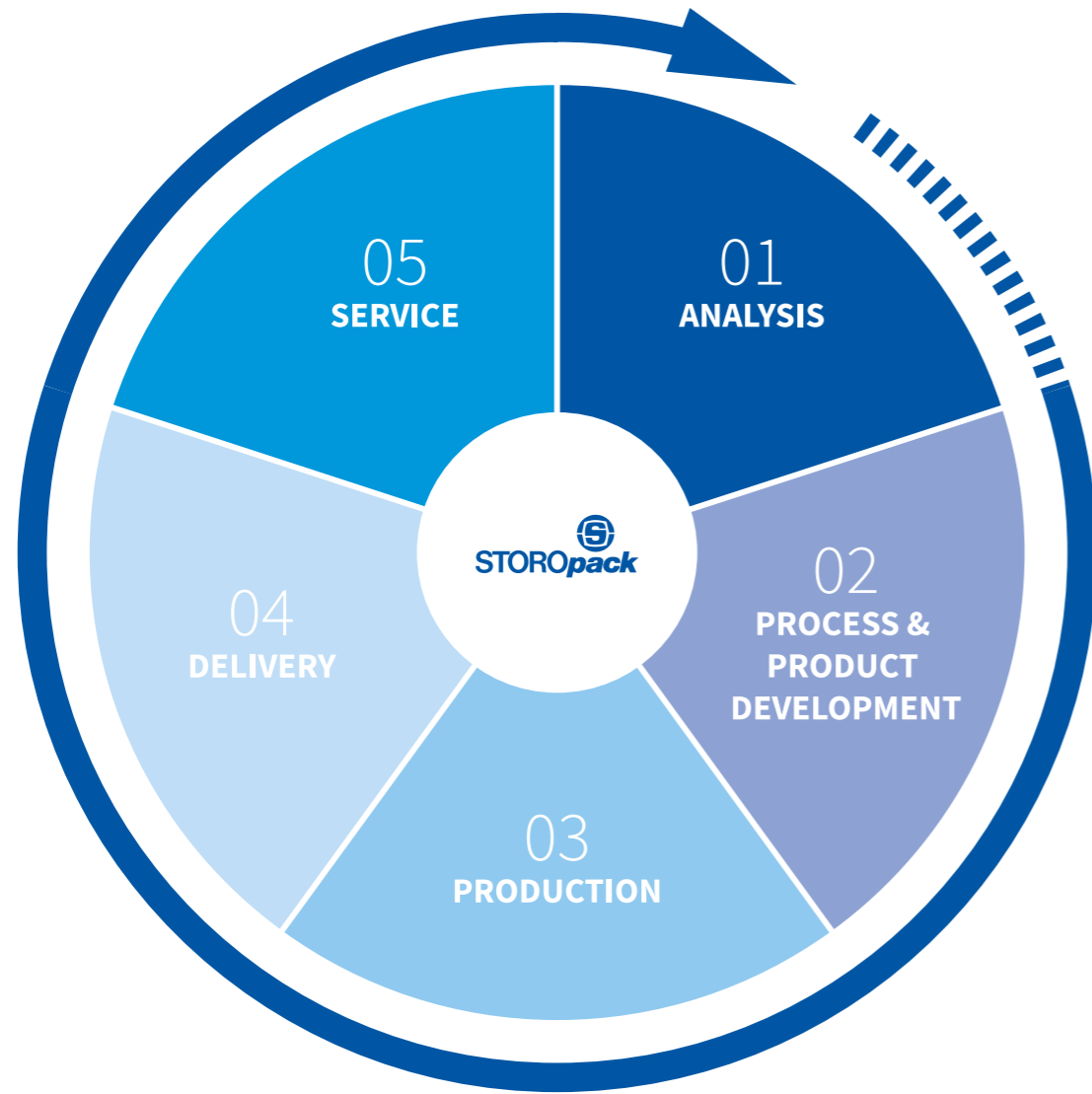
FOAMplus® Pre Mold





CONSULTING AND SERVICE

SERVICE MEANS
FOCUSING ON CUSTOMERS'
REQUIREMENTS.



GOOD CONSULTING MEANS DEVELOPING TAILORED SOLUTIONS.

Five steps to optimal protective packaging and ergonomic procedures – in the Storopack process, we combine comprehensive consulting, technical expertise, and innovation in order to develop the right solution for you. We analyze the existing packaging and production processes and the current cost situation. On this basis, we ensure ergonomic workflows, optimal value for money,

and protective packaging, which can be integrated into your processes with ease. We can use components of our comprehensive portfolio or customize something new just for you. Thanks to our network of sites around the world, we manufacture in close proximity to you, deliver just in time, and are personally available at all times to assist you with our technical know-how.

▶ **The optimum packing process:** www.storopack.com/optimum-packaging-process-video

WE AIM TO IMPROVE YOUR PROCESSES ON A CONTINUOUS BASIS.

A key component of our strategy to achieve perfect protective packaging is the four-dimensional model. We analyze all of the packaging steps for every Storopack process, from intralogistics to unpacking at the end customer's location.

This model forms the basis for tailored protective packaging solutions as well as our efforts to optimize your packing processes.

INTO-THE-BOX

How effective, efficient and ergonomic is your packing process?

IN-THE-BOX

How well are your products protected?



AROUND-THE-BOX

How well is your packing integrated into your intralogistics?

OUT-OF-THE-BOX

How are your customers' unboxing-experiences?

P

PACKAGING SYSTEMS AND APPLICATIONS

VARIETY IS
OFFERING THE APPROPRIATE
PROTECTION FOR EACH ITEM.



THE FOAMplus® Bag Packer SYSTEMS

OFFER FOAM PADDING AT THE TOUCH OF A BUTTON.

The FOAMplus® Bag Packer² and Bag Packer³ systems produce foam packaging bags at the touch of a button, which adapt specifically to the contours of the packaged goods. Thanks to the proven foam-in-bag system, film bags can be filled with foam automatically through regular batch production or individually, directly at the packing station. When a bag is produced the expanding polyurethane foam pad will quickly mold itself around any product

shape in seconds, and affords the highest degree of protection against shock, vibration and compaction. A robust solution for goods in transit and storage that ensures products arrive in perfect condition. Thanks to its low weight, it also reduces transport costs whether it's fragile ceramics, bulky bicycles or heavy furniture.



Suitable for cushioning and block & brace applications:
FOAMplus® packaging bags and tubes



THE BENEFITS OF THE FOAMplus® BagPacker³

- ▶ ALL-ELECTRIC OPERATION
- ▶ FASTEST FOAM-IN-BAG MACHINE WITH 24 BAGS PER MINUTE (30 CM LONG, 50% FILLED)
- ▶ ADVANCED FILM SEALING TECHNOLOGY ENSURES SIGNIFICANTLY FASTER WORKFLOWS
- ▶ CAPABILITY OF PROCESSING 47 TO UP TO 60 CM WIDE FILM
- ▶ PRODUCES CONTINUOUS FOAM PACKAGING TUBES WITH A MINIMUM DIAMETER OF 40 MM
- ▶ THE INTUITIVE 10" TOUCH DISPLAY OFFERS FREELY PROGRAMMABLE OR PRESET FOAM BAG SIZES
- ▶ PACKING INSTRUCTIONS CAN BE STORED WITH IMAGES AND RETRIEVED BY BARCODE OR THROUGH THE EASY LOAD FUNCTION
- ▶ POSSIBILITY FOR REMOTE MAINTENANCE
- ▶ CAN BE EASILY INTEGRATED INTO EXISTING PACKAGING PROCESSES

THE BENEFITS OF THE FOAMplus® BagPacker²

- ▶ HYDRAULIC OPERATION
- ▶ PROCESSES FILM WIDTHS FROM 47 TO 60 CM
- ▶ PRODUCES CONTINUOUS FOAM PACKAGING TUBES WITH A MINIMUM DIAMETER OF 120MM
- ▶ INTUITIVE 10" TOUCH DISPLAY OFFERS FREELY PROGRAMMABLE OR PRESET FOAM BAG SIZES
- ▶ PACKAGING INSTRUCTIONS CAN BE STORED WITH IMAGES AND RETRIEVED BY BARCODE OR THROUGH THE EASY LOAD FUNCTION
- ▶ CAN BE EASILY INTEGRATED INTO EXISTING PACKAGING PROCESSES

▶ [FOAMplus® Bag Packer² product video:](http://www.storopack.com/bag-packer2-video)
www.storopack.com/bag-packer2-video





The ideal solution for large and heavy products with challenging contours: FOAMplus® Hand Packer² for direct injection

FOAMplus® Hand Packer² IS CUSTOMIZED PROTECTION FOR COMPLEX PRODUCTS.

FOAMplus® Hand Packer² is the ideal solution for special challenges, including those posed by bulky and heavy packaged goods as well as products with complex contours. The handy foam dispenser allows you to accurately fill the carton with foam packaging in mere seconds – for customized blocking and bracing and the perfect transport of packaged goods.

Foam pre-molded cushions can also be conveniently formed in advance with FOAMplus® Hand Packer². The microprocessor-controlled foam packaging system is extremely efficient, requires minimal maintenance thanks to the self-cleaning mixing chamber, and ensures seamless, cost-effective foam production with consistently high quality.

THE BENEFITS OF THE FOAMplus® Hand Packer²

- ▶ QUIET: NO-NOISE OPERATION
- ▶ USER FRIENDLY: BAR CODING PACKAGING INSTRUCTION ON AN INTUITIVE 7" TOUCH SCREEN CONTROL PANEL; ERGONOMIC AND LIGHT HAND-HELD FOAM DISPENSER
- ▶ FORWARD-LOOKING: NETWORK CONNECTION TO ENABLE REMOTE SERVICE
- ▶ VARIABLE: WALL-MOUNTED AND STAND VERSION SYSTEM AVAILABLE
- ▶ INTEGRATABLE: CAN EASILY BE INTEGRATED INTO EXISTING PACKING PROCESSES
- ▶ SPACE-SAVING: DEMAND-ORIENTED PRODUCTION OF FOAM PADS SAVES STORAGE SPACE

FOAMplus® FOR DIRECT INJECTION

- ▶ IDEAL FOR PARTICULARLY LARGE OR HEAVY ITEMS WITH COMPLEX SHAPES
- ▶ FOAM IS MANUALLY INJECTED DIRECTLY INTO THE BOX



FOAMplus® Hand Packer² Stand Version



Efficient packaging for high throughput applications:
FOAMplus® Remote Batcher System with FOAMplus® Bag Packer²

FOAMplus® Premold IS MOLDED AND PREFORMED PROTECTIVE PACKAGING READILY AVAILABLE.

FOAMplus® Premold Cushions from Storopack offer a sound choice over other types of preformed protective packaging, wrapping or cushioning materials. With our efficient, cost-saving mold design and creation process, secure custom fit product protection, and the prospect of faster, easier packing, you benefit from multi-

ple improvements to your packaging process. If space is a challenge, Storopack offers just-in-time delivery of the pre-molded cushions ready for use. Only order what you need and standardize your entire packaging work flow.

THE BENEFITS OF FOAMplus® PREMOLD

- ▶ SOURCE REDUCTION: HIGH YIELD RESULTS IN REDUCED OVERALL HANDLING
- ▶ ACCURATE: PACKAGING FOAM IS PRECISELY MOLDED INTO THE SHAPE OF THE REQUIRED FOAM PADDING
- ▶ EFFICIENT: IDEAL FOR PROTECTING A LARGE QUANTITY OF THE SAME PRODUCT
- ▶ READILY AVAILABLE: PRE-PRODUCE THE REQUIRED QUANTITY OF FOAM PADDING AT ANY TIME
- ▶ JUST-IN-TIME: PROVIDES HIGH-QUALITY CUSHIONING WITHOUT EQUIPMENT
- ▶ TESTED: DESIGNED TO MEET ISTA REQUIREMENTS

THE REMOTE BATCHER SYSTEM OFFERS AN IDEAL SOLUTION FOR THE STORAGE OF FOAMplus® COMPONENTS.

The Remote Batcher System for FOAMplus® packaging systems is ideal for companies with a high throughput that are looking to increase packaging efficiency. The innovative system allows for one or more FOAMplus® machines to be connected to one set of totes via remo-

tely placed pumps. The separately placed pumps don't have to be moved when changing totes thus offering an ergonomic solution according to Storopack's Working Comfort® principle. Therefore decreasing tote transfer time and reducing packaging footprint.

THE BENEFITS OF THE FOAMplus® REMOTE BATCHER SYSTEM

- ▶ FLEXIBLE AND COMPACT: CAN BE INSTALLED WITH ONE OR MORE FOAMplus® PACKAGING SYSTEMS FOR A COST AND SPACE EFFECTIVE SOLUTION
- ▶ COMPATIBLE: WORKS WITH THE FOAMplus® Bag Packer SYSTEMS OR THE FOAMplus® Hand Packer²
- ▶ EFFICIENT: THE SYSTEM UTILIZES GRAVITY TO PULL CHEMICALS TO THE BOTTOM OF EACH TOTE, ENSURING 100% OF BOTH COMPONENTS ARE USED
- ▶ ERGONOMIC: PUMPS DON'T NEED TO BE MOVED AS THEY WILL PERMANENTLY STAND IN THE REMOTE BATCHER SYSTEM
- ▶ FAST: SYSTEM CAN QUICKLY BE DISCONNECTED FROM THE BOTTOM OF EACH TOTE, ALLOWING FOR A FASTER TRANSFER



The fast solution for molded protective packaging:
FOAMplus® Premold

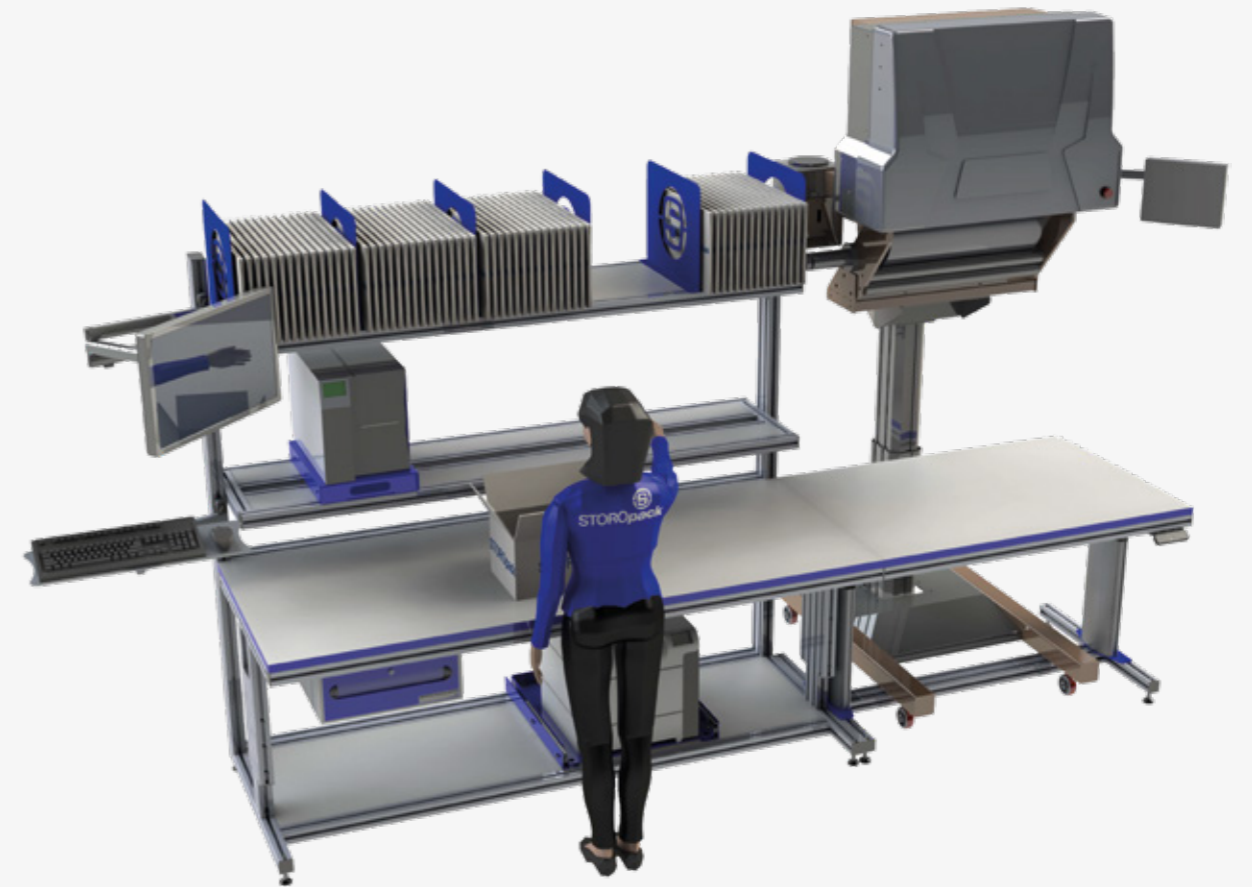
Working Comfort® MEANS BEING MORE PRODUCTIVE WITH ERGONOMIC PACKAGING STATIONS.

Ergonomic workspaces and efficient operations solutions. Storopack help increase the productivity of your protective packaging process with Working Comfort®. Every unnecessary movement when packaging your products costs the packer time and energy. This can be avoided with the right processes and workstations. Our experts analyze your existing packaging processes and come up with the right solution, taking into account ergonomic aspects.

Working Comfort® LEADS TO

- ▶ INCREASED PRODUCTIVITY
- ▶ ELIMINATES FATIGUE
- ▶ WELL-BEING OF YOUR EMPLOYEES AT THE WORKSTATION IS INCREASED

The focus here is on the efficiency of the processes and the well-being of your employees in equal measure: Unnecessary tasks are eliminated; all packaging material is always conveniently on hand for the packer at the workstations, which are designed in line with the Working Comfort® principle.



Developed in line with the Working Comfort® principle:
SMARTline Packing Station with FOAMplus®



For comfortable and ergonomic work:
Working Comfort® solution with FOAMplus®

SMARTline Packing Stations FOCUS ON ERGONOMICS IN THE PACKAGING PROCESS.

The SMARTline Packing Stations are ergonomically designed according to the Working Comfort® principle. Unnecessary movements are avoided, as the packer always has all of the packaging materials conveniently to hand. The individually customized packing stations are ergonomically designed

and not only increase the productivity of your processes, but also the well-being of your employees. Thanks to the modular principle, the packing stations can be expanded at any time and thus tailored to your employee's individual needs and the requirements of your packing process.

THE BENEFITS OF THE SMARTline Packing Stations

- ▶ VERSTILE: COMPREHENSIVE SOLUTION FOR ALL OF Storopack's PACKAGING MATERIALS: AIRplus®, PAPERplus®, PAPERbubble®, FOAMplus®, AND LOOSE FILL
- ▶ SMART: SEAMLESS INTEGRATION INTO YOUR PACKING PROCESS
- ▶ ERGONOMICAL: DESIGNED IN ACCORDANCE WITH THE Working Comfort® PRINCIPLE
- ▶ FLEXIBLE: CAN BE EXPANDED AT ANY TIME THANKS TO THE MODULAR CONCEPT AND EXTENSIVE ACCESSORIES
- ▶ VISUALLY APPEALING: ELEGANT LOOKING ALUMINUM STRUCTURE



F

FOAMplus® FILM TYPES AND FOAMS

FOAMplus® IS
AS VARIABLE AS ITS APPLICATION.

FOAMplus® FOAMS AND FILM TYPES

PROTECT ARTICLES OF VARIOUS DIMENSIONS, SHAPES AND WEIGHTS.

All FOAMplus® machines produce foam padding based on the same principle: the device mixes two liquid components to produce (H)CFC-free polyurethane which expands and hardens in a matter of seconds. The types of foam vary in terms of (bulk) density, firmness and padding effect. With density values of 4 to 20 kg/m³,

FOAMplus® provides a solution for almost any application. FOAMplus® 5504 foam has a much lower density than other foams on the market but is lightweight and extra strong. The foam reduces the costs of protective packaging and shipping and saves on resources.

FOAMplus® 5504R consists partly of a material obtained by recycling polyurethane. With just 4.2 kg/m³ it is extremely lightweight while providing optimum performance for void fill applications and cushioning of lightweight items.

Storopack FOAMplus® films guarantee a consistently high product quality. The films are available in various widths with up to 60 cm to accommodate even large applications.

AVAILABLE DRUMS AND CONTAINERS:

FOAMplus® METAL DRUMS

- ▶ TWO DIFFERENT SIZES OF METAL DRUMS: 60-LITER OR 200-LITER
- ▶ FOAM IS PRODUCED USING COMPONENTS A AND B
- ▶ EMPTY CONTAINERS CAN BE PICKED UP AND DISPOSED OF BY STOROPACK

FOAMplus® CONTAINERS

- ▶ TWO DIFFERENT SIZES OF CONTAINERS: 300-LITER OR 1,000-LITER IBC
- ▶ EMPTY CONTAINERS CAN BE PICKED UP AND DISPOSED OF BY STOROPACK

AVAILABLE FILM TYPES:

FOAMplus® STANDARD FILM

- ▶ HEAVY-DUTY FILM QUALITY FOR EXTRA DURABILITY AND RELIABILITY
- ▶ AVAILABLE IN 47CM AND 60CM ROLL WIDTH, GUSSETED OR CENTERFOLD VERSIONS

FOAMplus® ESD FILM

- ▶ ANTISTATIC FOAMplus® FILM, MEETS THE REQUIREMENTS FOR ELECTROSTATIC DISSIPATIVE MATERIALS



The ideal solution for any demand:
FOAMplus® metal drums and containers



The safe and durable option:
FOAMplus® films



SUSTAINABILITY

SUSTAINABILITY MEANS
THINKING ABOUT TOMORROW,
TODAY.

REDUCE
REUSE
RECYCLE
RENEW



Sustainability encompasses many aspects. Whether environmental, economic, or social issues, the underlying principle is the same, i.e. to live in a way that enables future generations to have a life that is just as good as – or even better than – our own. As a family-run company, we take these principles extremely seriously.

New, more sustainable raw materials are a great way to protect the environment and natural resources. Therefore, our product-development experts are increasingly using suitable eco-friendly and sustainable materials for our products.

FOAMplus® 5504R

- ▶ PACKAGING FOAM MADE PARTLY FROM POLYOLS OBTAINED BY RECYCLING POLYURETHANE
- ▶ WASTE AND LEFTOVER POLYURETHANE FROM MANUFACTURING OR CONSUMERS ARE PROCESSED AT RECYCLING FACILITIES IN ORDER TO PRODUCE RECYCLED POLYOL
- ▶ FOAMplus® 5540R HAS SIMILAR PROPERTIES TO THE BASE MATERIAL AND CAN BE USED TO PRODUCE HIGH-QUALITY PROTECTIVE PACKAGING
- ▶ WEIGHS JUST 4.2 KG PER CUBIC METER



REDUCE

- ▶ FOAMplus® FOAM PACKAGING AND THE CORRESPONDING PRODUCTION PROCESS IS DESIGNED TO REDUCE THE USE OF NATURAL RESOURCES.
- ▶ DURING TRANSPORT, THE LIGHTWEIGHT PACKAGING ALSO HELPS REDUCE FUEL CONSUMPTION.

FOAMplus® FOAM PACKAGING CAN REPLACE PRIMARY RAW MATERIALS.

- ▶ AS PART OF THE GENERAL WASTE STREAM, FOAMplus® FOAM IS AN EXCELLENT SOURCE OF FUEL FOR THERMAL RECYCLING THUS GENERATING ENERGY FROM WASTE MATERIALS.

REUSE

- ▶ FOAMplus® FOAM PACKAGING CAN BE REUSED FOR MULTIPLE SHIPMENTS OF THE SAME PRODUCTS.

RECYCLE

- ▶ POST-CONSUMER OR PRODUCTION WASTE FROM

COLLABORATIVE INITIATIVES

To boost sustainability in the use of plastics, we are involved in initiatives dedicated to combating plastic waste

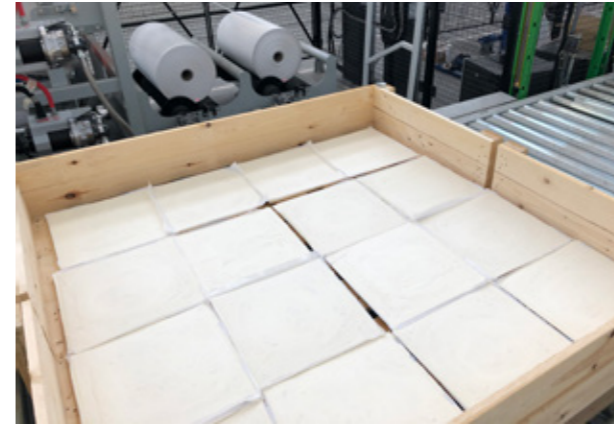
such as Alliance to End Plastic Waste, Big Blue Ocean Cleanup, CEFLEX and Operation Clean Sweep.



 **More about Sustainability:** www.storopack.com/sustainability

Customer Case Studies

FOAMplus® 10,000 PACKAGES PER DAY



The FOAMplus® Pad Molder packaging system fully automatically produces up to 24 foam packaging cushions a minute, making it ideal for packing lines with a high throughput: the system enables just-in-time production and eliminates the need to store packaging material. Measuring 40 × 40 × 2 cm, the pads offer perfect protection for fragile goods, including shipping goods made from glass or ceramic, whether in containers or on pallets. The FOAMplus® Pad Molder system delivers on everything customers expect of an efficient protective packaging system for sensitive shipping goods: high throughput, fully automatic processes, simple operation, space savings, and optimal product protection are con-vincing arguments for investing in Storopack's new foam packaging system.

An efficient packaging process and perfectly protected products – those were the requirements of a leading provider of workshop supplies, assembly and fastening products for trade and industry. The wide range of products and therefore also the contents of individual shipments handled by the major retailer meant that it was possible for fragile items and heavy items to be packed together in the same box. So products had their own packaging protection requirements when it came to holding them in place and securing them in the box.

FOAMplus® foam padding in the form of foam-filled bags meets the requirements perfectly. The bags block and brace all the items in the package and also provide optimum padding for heavy products and increase the compression strength of the box. 15 Bag Packer² fill the bags quickly and cleanly, simply at the press of a button.



Customer Case Studies

FOAMplus® FULLY AUTOMATIC

“Thanks to this system, we have been able to avoid stocking high volumes of packaging material; additionally, the solution fits the ‘just in time’ approach.”

PROJECT MANAGER



If you would like to obtain additional information or speak to us directly, please feel free to get in touch with us. At Storopack we are happy to help.

Storopack Deutschland GmbH + Co. KG

Untere Rietstrasse 30
72555 Metzingen
Germany

Africa & Middle East	+49 7123 164-0
Asia-Pacific	+852 3421 2392
Europe	+800 7867 6722
North America	+1 800 827 7225
South America	+55 11 5677 4699

info@storopack.com
www.storopack.com