KNAUF**INDUSTRIES**

PACKAGING, PROTECTING, TRANSPORTING

Industrial Solutions

EDITO

Knauf Industries has been offering logistic packaging and protection solutions made of airpop®, expanded polypropylene, PS-PE copolymer and technical foams for 40 years.

Innovation, quality and customer service are at the heart of our concerns!

Our standard packaging solutions, intended for a large array of business sectors (industry, SME-SMI, distributors and retailers) offer optimal protection, and are ideal to **secure**, **pack** and **transport** your products.

Isothermal containers, corner protections and protective wedges, pallets and boxes: we offer a large range of solutions adapted to the requirements of the most challenging sectors.

Standard or custom design:
we have a solution for everyone!
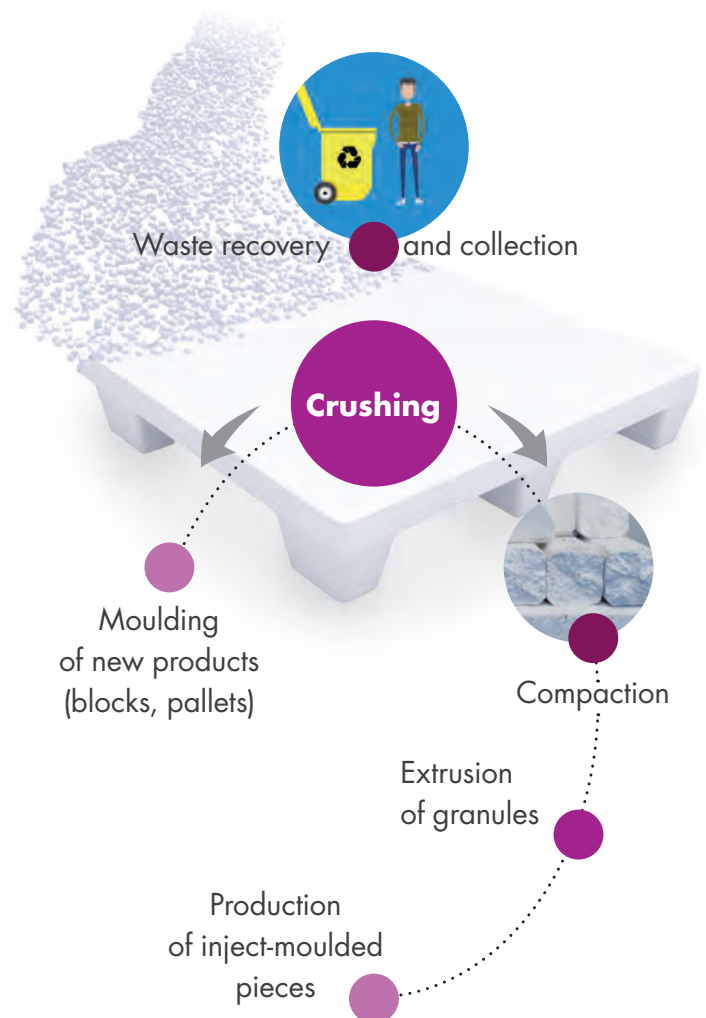
Why not find out more about our product ranges!

FABRIQUÉ
EN FRANCE

You will find our full catalogue on our website:
www.knauf-industries.com

THE CIRCULAR ECONOMY AND airpop® RECYCLING AT KNAUF INDUSTRIES

« Regardless of your business sector, and your size, integrating CSR performances in buyer-supplier relationships has become essential for a long-term industrial leadership position acquisition ».
Source ECOVADIS 2018

Waste recovery and collection

Crushing

Moulding
of new products
(blocks, pallets)

Compaction

Extrusion
of granules

Production
of inject-moulded
pieces

airpop®

- 98 % air for only 2 % of material
- 13.000 tonnes of airpop® are recycled, giving a recycling rate of 33.25 % of the whole French pool
- 62 % of corporate airpop® packaging is recycled
- 800 airpop® collection points can be found in Metropolitan France

Source ELIPSO - https://ecopse.org

Knauf Industries solutions are 100% recyclable.

You can set up a collection and recycling system.

CONTACT US!

CONTENTS

TECHNICAL MATERIALS AT THE CUTTING EDGE OF INNOVATION

Knauf Industries processes technical foams (airpop®, EPP, PS-PE copolymer, PE, PTZ, PU…) capable of carrying out different functions by means of their specific characteristics. You will be amazed to discover the scope of technical possibilities offered by our materials!

airpop®
engineered air

PROTECTION & SHOCK ABSORPTION
Our materials provide optimal protection against vibrations and shocks during transport.

RECYCLING
Our products are 100% recyclable and recoverable. They are designed and manufactured as part of a circular economy process.

MECHANICAL RESISTANCE
Our materials are selected according to the sought type of resistance: compression, shear, deformation percentage, elongation and elasticity.

SOUND INSULATION
Our solutions provide sound-proofing and help to reduce noise levels.

LIGHTWEIGHT
Our airpop® material is as light as a feather and easy to handle. It is made of 98% air.

THERMAL INSULATION
Our materials offer a solution to heat transmission problems caused by heat conductivity. Based on the application involved and the stipulated insulation constraints, we select the material with the most suitable insulating power.

CHEMICAL RESISTANCE
Our solutions are compatible with specific products such as cement, lime, plaster, asphalt, putties and silicones, soaps, etc.

ISOTHERMAL SOLUTIONS

Packaging solutions for temperature-sensitive products

DID YOU KNOW IT?

The quantity of cooling blocks you need is minimised within fully insulated packaging. The weight of the package also. This optimises transport costs.
It also reduces the carbon footprint.

Qualified solutions
-80°C/-20°C up to 110 hours

Frobox

Our Frobox solutions insure ideal logistic conditions to keep your frozen products between -80°C and -20°C up to 110 hours in complete safety with dry ice.

Pre-qualified solutions
+2°C/+8°C up to 120 hours

Masterbox

We ensure compliance with the most highly specific regulations.

Our Masterbox solutions provide controlled-temperature transport conditions between +2°C and +8°C up to 120 hours.

Tested solutions
+15°C/+25°C up to 48 hours

Ambibox

The primary function of our Ambibox solutions is to keep your products at ambient temperature: between +15°C and +25°C up to 48 hours.

Isothermal solutions

Coolbox

In line with market needs, we have developed a wide range of isothermal containers which are perfectly suited for shipping all types of fresh and sensitive to temperature variations products.

ISOTHERMAL SOLUTIONS

Frobox

Qualified solutions at -80°C / -20°C up to 110 hours

Our qualified Frobox solutions will keep your temperature-sensitive products between -80°C and -20°C for over 4 days!

In order to comply with your logistic and regulatory constraints, Frobox solutions have been designed with an exceptional thickness and superior thermal resistance to ensure that the cold chain remains unbroken. Our range of Frobox solutions is also suitable for transporting products that are sensitive to temperature variations (lactic acid cultures, serums, biological specimens, laboratory reagents, etc.).

Our solutions adapt perfectly to all application fields : diagnostic and reagent industries, clinical research sectors, laboratories and R&D.

Frobox product characteristics

❯ Can be used with carbonic snow
❯ **High isothermal potential,** reducing the melting of dry ice
❯ **Reinforced mechanical strength** (cardboard outer packaging)
❯ Compliance with quality specifications. Customised qualification possible
❯ Adding a **specific compartment** for **RFID** or **NFC** chips can be an option
❯ **Customisable**: airpop®, graphite-coated EPS (superior thermal performance), PS-PE copolymer (rigidity and use without cardboard), customer logo, etc.

DID YOU KNOW IT?

Delivering your isothermal solutions on Eurolight®* pallets made of airpop® material enhances the thermal performance of our solutions over time…

Which **Frobox** should you choose to transport and protect your product? You will find the description and characteristics of our solutions below.

If you require a custom-designed product, do not hesitate to contact us!

Frobox

Payload 1.2 L to 32 L

Description	External dimensions (L x W x H in mm)	Internal dimensions (L x W x H in mm)	Wall thickness (mm)	Payload (litres)	Quantity / pallet
Frobox 1,2 L	245 x 195 x 110	185 x 135 x 50	30	1,2	372
Frobox 2,4 L	280 x 280 x 140	200 x 200 x 60	40	2,4	180
Frobox 5 L	280 x 280 x 205	200 x 200 x 125	40	5	132
Frobox 8 L	280 x 280 x 280	200 x 200 x 200	40	8	96
Frobox 18 l	460 x 370 x 255	365 x 275 x 205	47	18	24
Frobox 32 L	580 x 380 x 395	460 x 260 x 270	60	32	24
Frobox 36 l	545 x 380 x 300	475 x 310 x 260	35	36	12
MATERIAL: airpop®					

- Suitable for palletisation on Eurolight® 128.
- Additional carton is as delivery option.

PRODUCT FOCUS: Freshbox®

Isothermal solution with two separate compartments: one for the coolants and one for the shipped goods.

Registered design

Description	External dimensions (L x W x H in mm)	Internal dimensions (L x W x H in mm)	Wall thickness (mm)	Payload (litres)	Quantity / pallet
Freshbox®	400 x 300 x 295	330 x 220 x 220	35	16	32
MATERIALS: airpop® or Copolymer PS-PE					

- Suitable for palletisation on Eurolight® 128
- Additional carton is as delivery option
- Additional Divider is an option

OUR FROBOX AND FRESHBOX® SOLUTIONS WERE TESTED AT -80°C

All our packaging solutions on **www.knauf-industries.com**

Masterbox

Pre-qualified solutions at +2°C/+8°C up to 120 hours

Our pre-qualified Masterbox solutions (NF S 99-700 standard) guarantee preservation and optimal protection of temperature-sensitive products between +2°C and +8°C.

Our range of Masterbox solutions is suitable for many applications in the health sectors involving the transport of organs, tissues, pharmaceutical, medical and biotech products.

These isothermal containers are also capable of transporting cold products while conserving their active components.

Their performances can last up to 120 hours, which means up to 5 days!

Masterbox product bonuses

> **Turnkey solution,** no assembly required
> **Protection** of thermal and physical integrity of products
> **Preservation** of effectiveness of active components
> **Tightness**: stack nest lids with hermetic sealing
> **Simplified** order preparation procedure
> Adding a **specific compartment** for **RFID or NFC** chips can be an option
> Customised assessment of solution on request
> **Single-material, 100% recyclable solutions**

Our commitment

Using its expertise in thermal insulation, Knauf Industries is committed to creating informative packaging solutions, ensuring secure transport for health products that require a controlled temperature.

Thanks to controlled traceability, we assist the batch release decision to ensure the sanitary safety of the product.

By guaranteeing the quality of our products through our know-how, we help to enhance our customers' brand image.

Which **Masterbox** should you choose to transport and protect your product? You will find the description and characteristics of our solutions below.

If you require a custom-designed product, do not hesitate to contact us!

Masterbox

Pre-qualified solutions as per NF S 99-700 standard cycles

Payload 3.7 L to 28 L

Description	External dimensions (L x W x H in mm)	Internal dimensions (payload) (L x W x H in mm)	Wall thickness (mm)	Payload (litres)	Quantity / pallet
Masterbox 3,7 L	400 x 400 x 260	165 x 165 x 135	60	3,7	24
Masterbox 12 L	600 x 500 x 475	350 x 250 x 285	70	12	16
Masterbox 28 L	700 x 600 x 550	430 x 330 x 345	70	28	10
MATERIAL: airpop®					

Suitable for palletisation on Eurolight® 128.

EXPLODED VIEW OF MASTERBOX 12 L

LID

BODY

INTERNAL COMPARTMENT

COOLANTS

EXTERNAL COMPARTMENT
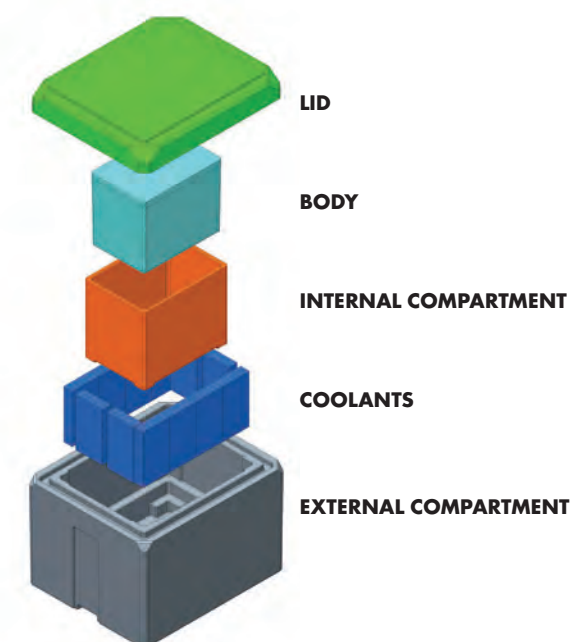
OUR MASTERBOX SOLUTIONS WERE TESTED

Qualification reports available on request.

Option to supply complete solutions including a standard or customised individual carton and cooling solutions (Eutectic, VIP, Flexible bodies) subject to estimated quantities.

Contact us for more details!

Specific isothermal solution for vaccines shipping

All our packaging solutions on **www.knauf-industries.com**

ISOTHERMAL SOLUTIONS

ISOTHERMAL SOLUTIONS

Ambibox

Tested solutions at +15°C/+25°C up to 48 hours

Ambibox isothermal containers are designed to facilitate the transport and storage of ambient temperature-sensitive products and maintain a temperature ranging from +15°C to +25°C for up to 48 consecutive hours.

Sturdy and resistant to moisture, water and heat, our range of solutions meets the requirements of professionals in the pharmaceutical sectors and allows full compliance with **Good Distribution Practice** (GDP) requirements.
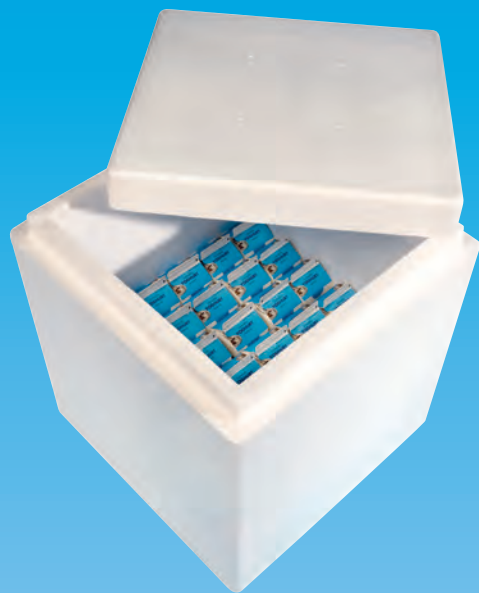
Ambibox product bonuses

› **Guaranteed** Good Distribution Practice compliance
› **Safe** short-term transport with temperature validation
› **Shock absorption** (product suitable for stacking and palletisation)
› Adding a **specific compartment** for **RFID or NFC** chips can be an option
› **Single-material, 100% recyclable solutions**

Ambibox product characteristics

› Qualification reports available on request
› Non-toxic material
› Customisable (Logo, marking of box or sleeve)

DID YOU KNOW IT?

The latest **Good Distribution Practice** guidelines recommend dedicated transport, with the guarantee of correct product conservation throughout the distribution chain.

Which **Ambibox** should you choose to transport and protect your product? You will find the description and characteristics of our solutions below.

If you require a custom-designed product, do not hesitate to contact us!
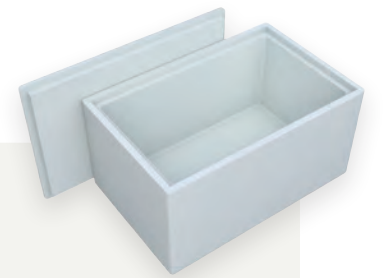
Ambibox

Payload 4 L to 81 L

Description*	External dimensions (with lid) (L x W x H in mm)	Internal dimensions (L x W x H in mm)	Wall thickness (mm)	Payload (litres)	Quantity / PU	Packaging
Ambibox 4 L	225 x 225 x 225	155 x 155 x 155	35	4	180	Pallet
Ambibox 12 L	380 x 280 x 285	300 x 200 x 205	40	12	72	Pallet
Ambibox 14 L	400 x 280 x 290	325 x 205 x 210	35	14	72	Pallet
Ambibox 18 L	460 x 370 x 280	365 x 275 x 205	47	18	24	Pallet
Ambibox 36 L	545 x 380 x 300	475 x 310 x 260	35	36	12	Pallet
Ambibox 37 L	500 x 500 x 310	400 x 400 x 230	50	37	3	Shrink wrap
Ambibox 49 L	580 x 380 x 390	520 x 320 x 300	30	49	24	Pallet
Ambibox 53 L	500 x 500 x 400	400 x 400 x 330	50	53	3	Shrink wrap
Ambibox 66 L	665 x 480 x 360	565 x 380 x 300	50	66	20	Pallet
Ambibox 75 L	500 x 500 x 540	400 x 400 x 470	50	75	3	Shrink wrap
Ambibox 81 L	635 x 550 x 430	535 x 450 x 340	50	81	16	Pallet
MATERIALS: airpop® and Graphite-coated EPS						

Suitable for palletisation on Eurolight® 128.

* Sold with base and lid

Ringed Ambibox

Payload 138 L to 988 L

Modular isothermal solution, suitable for palletisation on Eurolight® 128 - ideal for bulk transport

Description	External dimensions (L x W x H in mm)	Quantity / PU
Ringed Ambibox - Base	1 160 x 760 x 250	3 items /package
Ringed Ambibox - Ring	1 160 x 760 x 250	3 items /package
Ringed Ambibox - Lid	1 160 x 760 x 50	10 items /package

Product composition			External dimensions (L x W x H in mm)	Internal dimensions (L x W x H in mm)	Wall thickness (mm)	Payload (litres)	Weight (kg)
Base	Ring	Lid					
1	-	1	1160 x 760 x 300	1056 x 656 x 200	50	138	3
1	1	1	1160 x 760 x 546	1056 x 656 x 446		308	4,5
1	2	1	1160 x 760 x 792	1056 x 656 x 692		478	5,5
1	3	1	1160 x 760 x 1038	1056 x 656 x 938		648	6,5
1	4	1	1160 x 760 x 1284	1056 x 656 x 1184		818	7,5
1	5	1	1160 x 760 x 1530	1056 x 656 x 1430		988	8,9
MATERIALS: airpop® and Graphite-coated EPS							

All our packaging solutions on **www.knauf-industries.com**

ISOTHERMAL SOLUTIONS

Coolbox

Isothermal solutions by Knauf Industries

Specialised in the manufacture of controlled-temperature transport solutions for temperature-sensitive products, Knauf Industries offers a range of isothermal containers, complementary to its Frobox, Ambibox and Masterbox ranges: CoolBox.

This range is particularly suitable for fragile products that are sensitive to temperature variations, such as certain aquatic animal species.

Coolbox product bonuses

> Integrity of transported goods

> **Shock absorption**
  (product suitable for stacking and palletisation)

> Protection against moisture and heat

> Light weight and product functionality

> Adding a **specific compartment** for **RFID or NFC** chips can be an option

> **Single-material, 100% recyclable solution**

> **Customisable** (logo, marking of box or sleeve)

DID YOU KNOW IT?

Our airpop® containers can be used to transport fishes and other alive animals in complete safety all over the world.

Top **5** of airpop® properties

- High **isothermal** capacity: material solely consisting of regular and homogeneous closed cells
- **Protection**: in case of shocks or pressure, the packaging absorbs the energy so that the transported product is not damaged
- **Chemical resistance**: perfectly hygienic and inert
- **Environmentally friendly**: 100% recyclable, non-toxic. Its light weight reduces carbon footprint during transport
- **Energy optimisation**: more economical than a refrigerated container

Which **Coolbox** should you choose to transport and protect your product? You will find the description and characteristics of our solutions below.

If you require a custom-designed product, do not hesitate to contact us!

Coolbox – Small capacity

Payload 1 L to 9 L

| Description	External dimensions (L x W x H in mm)	Internal dimensions (L x W x H in mm)	Wall thickness (mm)	Payload (litres)	Quantity / PU	Packaging
Coolbox 1 L (BT100)	135 x 135 x 95	115 x 115 x 75	10	1	252	Shrink wrap
Coolbox 1 L+ (BT103)	190 x 125 x 97	164 x 95 x 70	13	1,1	198	Carton
Coolbox 2 L (BT200)	230 x 150 x 115	200 x 120 x 85	15	2	81	Shrink wrap
Coolbox 2 L+ (BT230)	180 x 180 x 135	150 x 150 x 105	15	2,2	60	Shrink wrap
Coolbox 4 L (BT420)	278 x 179 x 146	250 x 152 x 115	15	4,3	60	Shrink wrap
Coolbox 6 L (H122)	340 x 250 x 200	270 x 180 x 135	35	6,6	168	Pallet
Coolbox 8 L (BT680)	300 x 220 x 185	260 x 180 x 145	20	7,7	36	Shrink wrap
Coolbox 9 L (BT920)	420 x 320 x 250	320 x 220 x 130	50	9,2	9	Shrink wrap

Coolbox – Medium and large capacity

Payload 14 L to 87 L

Description	External dimensions (L x W x H in mm)	Internal dimensions (L x W x H in mm)	Wall thickness (mm)	Payload (litres)	Quantity / PU	Packaging
Coolbox 14 L (H123)	340 x 250 x 321	270 x 180 x 286	35	14	74	Pallet
Coolbox 23 L (H121)	410 x 310 x 330	350 x 250 x 270	30	23,6	77	Pallet
Coolbox 37 L (PM)	500 x 500 X 310	400 x 400 X 230	50	37	28	Pallet
Coolbox 39 L (H120)	410 x 310 x 510	350 x 250 x 450	30	39,4	40	Pallet
Coolbox 51 L (MOD3)	516 x 390 x 615	376 x 250 x 545	70	51,2	20	Pallet
Coolbox 55 L (AQUA)	600 x 400 x 380	530 x 330 x 315	35	55	4	Shrink wrap
Coolbox 87 L (GM)	700 x 420 x 585	580 x 300 x 500	60	87	16	Pallet

Foldable crate: patented solution by Knauf Industries
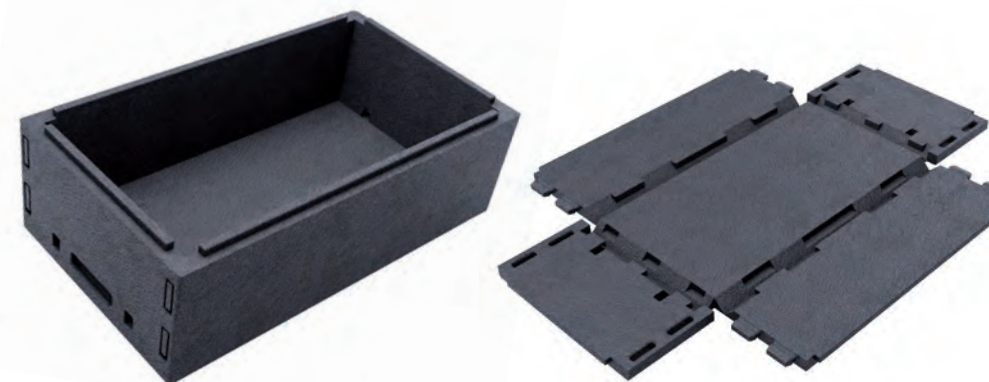
DID YOU KNOW IT?

Knauf Industries holds patents for the insertion of an RFID chip into an airpop® or expanded polypropylene container.
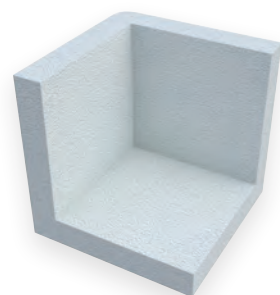
All our packaging solutions on **www.knauf-industries.com**

PROTECTION & SECURING

Foolproof solutions

DID YOU KNOW IT?

One of the measures of the French government's Circular Economy roadmap, published on 23 April 2018, aims to "Incorporate more secondary raw materials (SRM) in products".

PROTECTION & SECURING

Solutions protecting
what needs to be protected

Optimal protection that can be adapted
to the width of your products

Solutions providing
horizontal and vertical protection

The anti-shock solution
that adheres to all your surfaces!

Protective wedges

Standard packaging solutions suitable for the corner protection needs of your products.

Adjustable wedges

Width-adjustable packaging solutions, suitable for a multitude of your products.
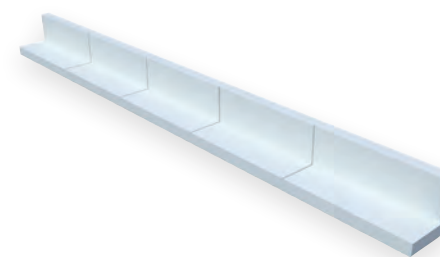
Corner protections

Packaging solutions fitting snugly the horizontal and vertical edges of your products for optimal protection.

Techniplot®

Range of technical pads made of alveolar foam used to suspend your products in their packages.

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p. 16

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Protective wedges

Solutions protecting what needs to be protected

Knauf Industries offers a range of standard wedges and securing solutions made of airpop® and expanded polypropylene.

The characteristics of our materials and our experience enable us to offer you ideal solutions to protect corners during transport and storage. They are adapted to all requirements in all sectors of industry.

A wide range of standard products is available based on the dimensions of your products.

Custom-designed solutions can also be developed.

Product bonuses

› **Absorbs shocks** and protects product integrity
› **Secures** your products optimally
› Manufactured in clusters of 2 or 4 pre-scored wedges
› **Ergonomic use** on packaging station
› **Compatible** with automated production and packaging lines

Which **wedges** should you choose to protect your product?
You will find the description and characteristics of our solutions below.

If you require a custom-designed product, do not hesitate to contact us!
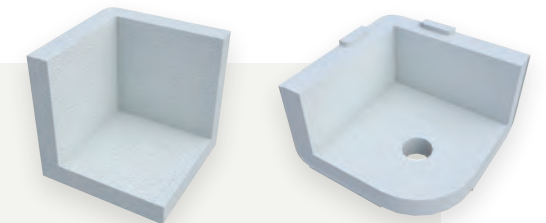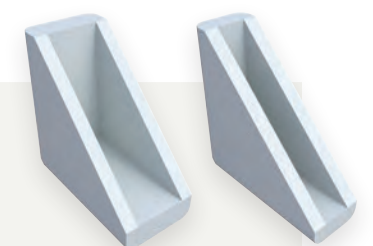
Square airpop® wedges

Description	External length (mm)	External width (mm)	External height (mm)	Thickness (mm)	Material	Quantity / PU	Packaging
Wedge 70 x 20	70	70	70	20	airpop®	1008	Shrink wrap
Wedge 75 x 20	75	75	75	20		560	Carton
Wedge 90 x 20	90	90	90	20		500	Shrink wrap
Wedge 135 x 20	135	135	80	20		384	Shrink wrap
Wedge 150 x 30	150	150	150	30		150	Shrink wrap

Square expanded polypropylene (EPP) wedges

Description	External length (mm)	External width (mm)	External height (mm)	Thickness (mm)	Material	Quantity / PU	Packaging
Square wedge 100 x 25	100	100	100	25	EPP 25 kg/m³	232	Carton

airpop® mirror wedges

Description	External length (mm)	External width (mm)	External height (mm)	Thickness (mm)	Material	Quantity / PU	Packaging
Mirror wedge 110 - Gap 15	110	110	50	18	airpop®	600	Shrink wrap
Mirror wedge 110 - Gap 20	110	110	50	15		600	Shrink wrap
Mirror wedge 110 - Gap 25	110	110	50	13		600	Shrink wrap
Mirror wedge 110 - Gap 30	110	110	50	10		600	Shrink wrap
Mirror wedge 120 - Gap 20	120	120	44	12		600	Shrink wrap
Open mirror wedge 120 - Gap 20	120	120	44	12		800	Shrink wrap
Truncated mirror wedge 110 - Gap 32	150	150	72	20		168	Shrink wrap
Truncated mirror wedge 110 - Gap 50	150	150	70	10		240	Shrink wrap
Truncated mirror wedge 110 - Gap 64	150	150	104	20		120	Shrink wrap
Truncated mirror wedge 110 - Gap 74	150	150	104	15		120	Shrink wrap
Truncated mirror wedge 110 - Gap 80	150	150	104	12		120	Shrink wrap

PROTECTION & SECURING

Adjustable wedges

Optimal protection that can be adapted to the width of your products

Knauf Industries offers a range of width-adjustable corner protectors – from 32 to 400 mm – for adjusted protection of your fragile products.

Our solutions are able to meet requirements in all sectors of industry and help to reduce the number of packaging references.

We offer a wide range of standard products. Custom-designed solutions can also be developed to your specifications.

Product bonuses

> **Delivered assembled** (with elastic tie), ready for use
> **Limits** the number of packaging references
> **Absorbs shocks**: absorbs shocks and pressure and protects product integrity
> A simple demonstration allows operators to master the **tool-free assembly process**
> **Compatible** with automated production and packaging line
> **Available in 3 materials**: airpop®, EPP and PS-PE copolymer. High-density moulding possible

Which **adjustable wedges** should you choose to protect your product? You will find the description and characteristics of our solutions below.

If you require a custom-designed product, do not hesitate to contact us!
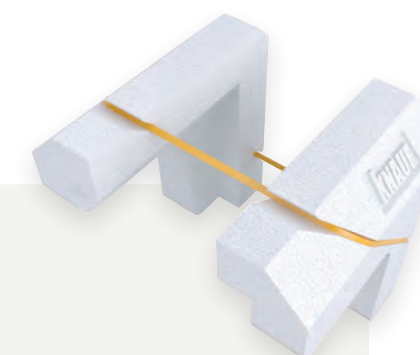
airpop® adjustable wedges

Delivered assembled with elastic tie, ready for use.
Available in PS-PE copolymer

From 32 to 400 mm

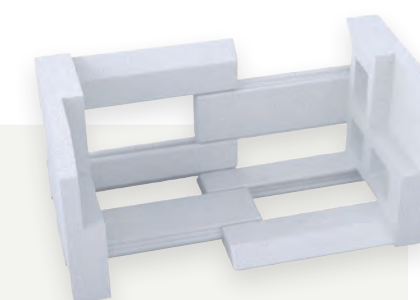| Description	External length (mm)	External width (mm)	External height (mm)	Thickness (mm)	Material	Quantity/PU	Packaging
Adjustable wedge - 32 to 400 mm	125	125	80	25	airpop®	294	Shrink wrap

Adjustable wedges – Multi-material

Delivered assembled (with elastic tie), ready for use.
Available airpop®, EPP and PS-PE copolymer

From 32 to 300 mm

Description	External length (mm)	External width (mm)	External height (mm)	Thickness (mm)	Material	Qty/ PU	Packaging
Adjustable wedge - 32 to 300 mm - EPP	125	125	82	25	EPP 25 kg/m³	280	Carton
Adjustable wedge - 32 to 300 mm - piocelan	125	125	82	25	piocelan 33 kg/m³	280	Carton
Adjustable wedge - 32 to 300 mm - airpop®	125	125	82	25	airpop® 25 kg/m³	280	Carton

airpop® adjustable wedges

Delivered non-assembled, assembly by pairing both half-wedges.
Also available in PS-PE copolymer

From 10 to 200 mm

Description	External length (mm)	External width (mm)	External height (mm)	Thickness (mm)	Material	Quantity/ PU	Packaging
Adjustable wedge - 10 to 200 mm - airpop®	120	120	140	25	airpop®	96	Carton

All our packaging solutions on **www.knauf-industries.com**

PROTECTION & SECURING

Corner protections

Solutions providing horizontal and vertical protection

Knauf Industries offers a range of corner protections, used to secure and reinforce your product or package effectively during transport and storage. Our solutions help to balance the strapping forces while palletising the product.

Our solutions are adapted to requirements in all sectors of industry and help to ensure vertical and horizontal protection of your products.

We offer a wide range of moulded standard products that can be supplemented with custom cut solutions with a 2D process, using our Technidec® technology.

Product bonuses

❯ Ensures that the product is kept in batches

❯ Your products become loadbearing, ideal when stacking pallets

❯ **Protects** products from loads and strain due to strapping or film-wrapping

❯ **Secures** your products optimally against violent shocks and continuous pressure forces

❯ Lowers costs as no needs for outer packaging

❯ **Dividable** at different lengths: limits the number of packaging references

❯ Easy handling

❯ **100% recyclable and recoverable**

❯ Moisture-resistant

❯ Compatible with automated production and packaging lines

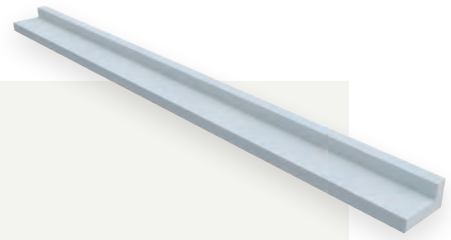### Focus: the corner protection, dividable at different lengths!

• Does not need use of specific tools (cutter) to adjust length. Less RSI for your operators.

• Eliminates product scraps at packaging station: zero waste!

• Reduces the number of packaging references to be handled.
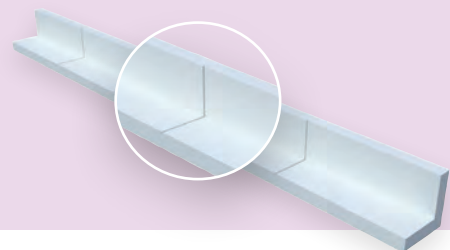
Which **corner protection** should you choose to protect your product? You will find the description and characteristics of our solutions below.
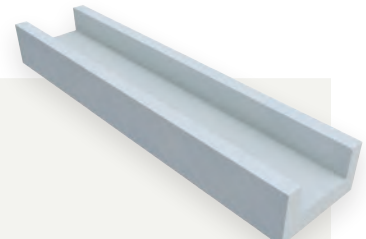
If you require a custom-designed product, do not hesitate to contact us!
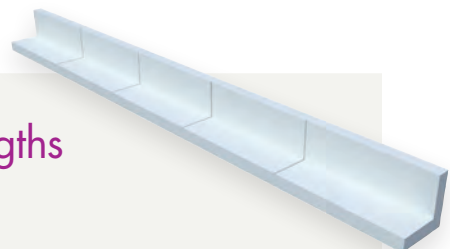
L-shaped corner protections

Description	External length (mm)	External width (mm)	External height (mm)	Thickness (mm)	Material	Quantity / PU	Packaging
L-shaped corner protection 480 - 80×80	480	80	80	20	airpop®	140	Shrink wrap
L-shaped corner protection 480 - 105×105	480	105	105	20	airpop®	100	Shrink wrap
Col-shaped corner protection 600 - 80×80	600	80	80	20	airpop®	140	Shrink wrap
L-shaped corner protection 600 - 105×105	600	105	105	20	airpop®	100	Shrink wrap
L-shaped corner protection 1200 - 120×120	1200	120	120	25	airpop®	50	Shrink wrap
L-shaped corner protection 1350 - 90×90	1350	90	90	20 or 25	airpop®	40 or 30	Package

U-shaped corner protections

Description	External length (mm)	External width (mm)	External height (mm)	Thickness (mm)	Material	Quantity / PU	Packaging
U-shaped corner protection - Gap 19 mm	200	50	40	20	airpop®	429	Shrink wrap
U-shaped corner protection - Gap 29 mm	200	50	40	10	airpop®	447	Shrink wrap
U-shaped corner protection - Gap 23 mm	400	65	43	20	airpop®	416	Shrink wrap
U-shaped corner protection - Gap 37 mm	400	65	45	20	airpop®	416	Shrink wrap
U-shaped corner protection - Gap 48 mm	400	80	48	20	airpop®	288	Shrink wrap
U-shaped corner protection - Gap 63 mm	400	93	50	20	airpop®	300	Shrink wrap

L-shaped corner protections, dividable at different lengths

Description	External length (mm)	External width (mm)	External height (mm)	Thickness (mm)	Material	Quantity / PU	Packaging
L-shaped corner protection 600 - score 100 mm	600	90	90	20	airpop®	125	Shrink wrap
L-shaped corner protection 670 - score 80 mm	670	60	60	20	airpop®	192	Shrink wrap
L-shaped corner protection 900 - score 150 mm	900	90	90	20	airpop®	109	Shrink wrap
L-shaped corner protection 1200 - score 150 mm	1200	85	85	20	airpop®	80	Shrink wrap
L-shaped corner protection 1200 - score 200 mm	1200	120	120	30	airpop®	312	Carton

All our packaging solutions on **www.knauf-industries.com**

Techniplot®

The anti-shock solution that adheres to all your surfaces!

Knauf Industries offers a range of technical pads made of alveolar foam (airpop®, polyethylene) which can be used to provide effective protection for your products suspended in their packaging unit.

They meet a large array of securing requirements.
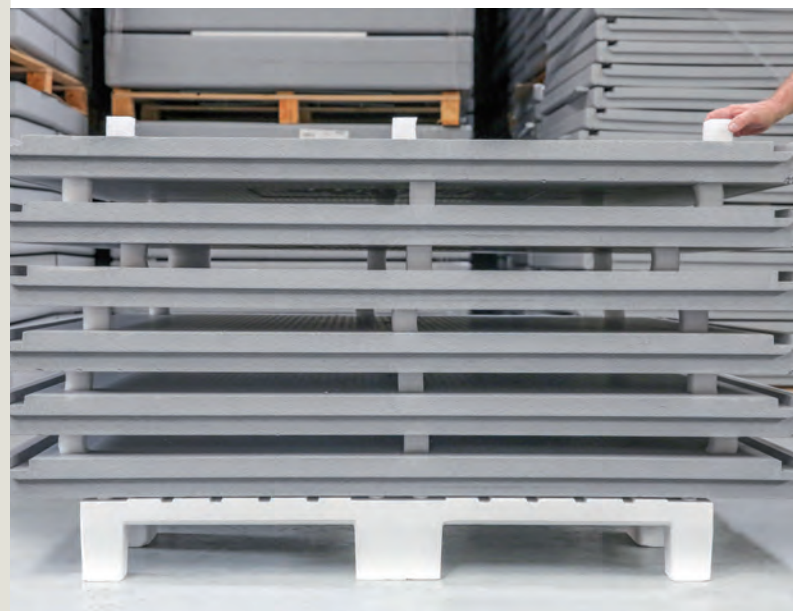
Product bonuses

❯ **Adheres instantly** to all types of surfaces (wood, cardboard, plastic)

❯ **Non-abrasive** (thanks to its closed cell composition)

❯ **Shorter set-up time**: no need for glue or clips

❯ **Resistant** to mould and moisture

❯ Options: **Repositionable** or **Permanent Adhesive**

DID YOU KNOW IT?

Our products are supplied in sheets.

Separate enables easier use and optimises storage on your production lines.

Which **pads** should you choose to transport and protect your product? You will find the description and characteristics of our solutions below.

If you require a custom-designed product, do not hesitate to contact us!

Foam pads (with permanent adhesive – ADP)

Description	Length (mm)	Width (mm)	Thickness (mm)	Quantity / PU	Packaging
Pad 50x50x25 ADP	50	50	25	2304	
Pad 50x50x50 ADP	50	50	50	1152	
Pad 75x75x25 ADP	75	75	25	1024	Carton
Pad 75x75x50 ADP	75	75	50	512	
Pad 100x100x25 ADP	100	100	25	576	
Pad 100x100x50 ADP	100	100	50	288	
MATERIAL: polyethylene 24 kg/m³					
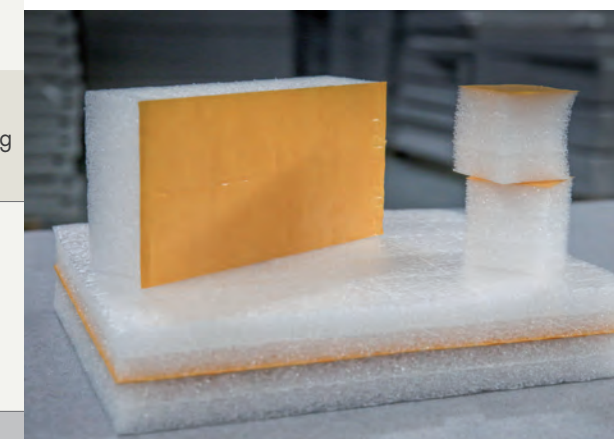
Foam pads (with repositionable adhesive – ADL)

Description	Length (mm)	Width (mm)	Thickness (mm)	Quantity / PU	Packaging
Pad 50x50x25 ADL	50	50	25	2304	
Pad 50x50x50 ADL	50	50	50	1152	
Pad 75x75x25 ADL	75	75	25	1024	Carton
Pad 75x75x50 ADL	75	75	50	512	
Pad 100x100x25 ADL	100	100	25	576	
Pad 100x100x50 ADL	100	100	50	288	
MATERIAL: polyethylene 24 kg/m³					
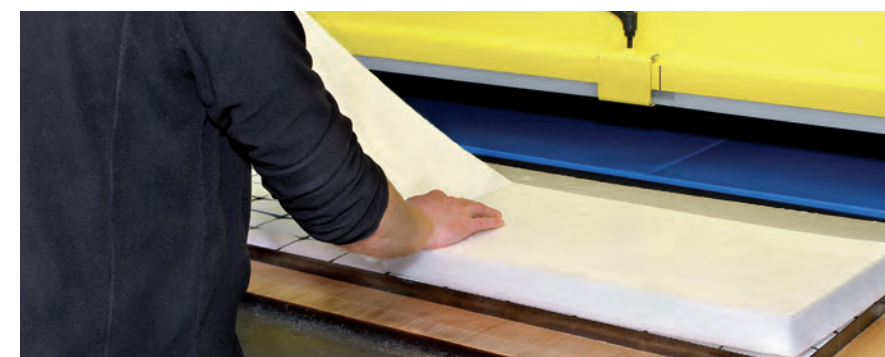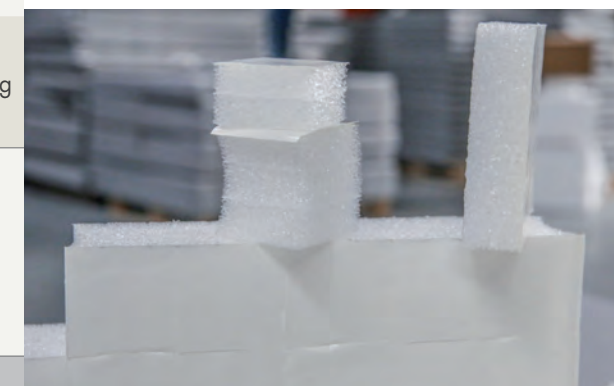
airpop® pads (with permanent adhesive – ADP)

Description	Length (mm)	Width (mm)	Thickness (mm)	Quantity / PU	Packaging
30 mm adhesive stop	50	53	30	5980	
40 mm adhesive stop	50	53	40	4600	Carton
50 mm adhesive stop	50	53	50	3980	
MATERIAL: airpop®					

All our packaging solutions on **www.knauf-industries.com**

PROTECTION & SECURING

ISymoov®

Handling and storage solutions

As light as a feather,
for a big success!

Limitless packing,
storage, transport options...

Eurolight® & S-KI

Standard and custom pallets, compatible with automated systems, for your specific packaging needs.

Komebac®

A range meeting needs and requirements in all industries in terms of rotating packaging.

isymoov

HANDLING & STORAGE

Eurolight® & S-KI

As light as a feather, for a big success!

Designed to adapt to conditions within industry, our Eurolight® pallets offer a **clean, environmentally friendly, ergonomic alternative** to conventional wooden or plastic pallets.

Lightweight (less than 2 kg), sturdy and **100% recyclable**, our solutions are ideal for all logistic modes of transportation (air, land and sea).

They are perfectly suited for the pharmaceutical, cosmetic and parcel delivery industries.

Their light weight helps you optimise transport costs and improve the working conditions of your operators. Our solutions are single-material, made of 98% air, and help **prevent Repetitive Strain Injury.**

Product bonuses

> **Single-material,** 100% recyclable

> **Lightweight** : made of 98% air, its weigh is less than 2 kg

> **Naturally inert**: no NIMP15 treatment required

> **Waterproof**: low absorption rate (1 to 5%, constant tare weight)

> **Insulating**: ensures that the temperature of transported products remains stable and prevents energy transmission when immobilised

> **Less RSI** for your operators (Repetitive Strain Injury)

DID YOU KNOW IT?

One wooden pallet weights as much as 8 Eurolight® airpop® pallets.
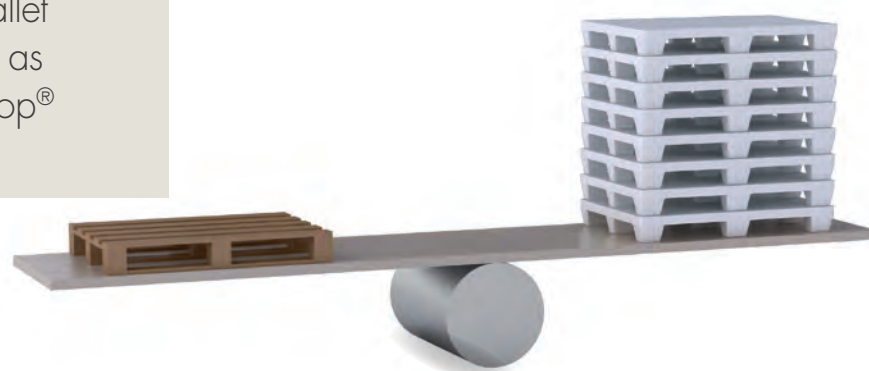
Eurolight® – standard

3 sizes available

4 entries, 3 European sizes

Description	External length (mm)	External width (mm)	Existing external height (mm)	Fork clearance height (mm)	Quantity / Pallet
Eurolight® 128	1200	800	150	100	18
Eurolight® 86	800	600	150	100	18
Eurolight® 64	600	400	150	100	18

Do not hesitate to contact us to get the results of the tests conducted by LNE, as per the NF EN ISO 8611 standard
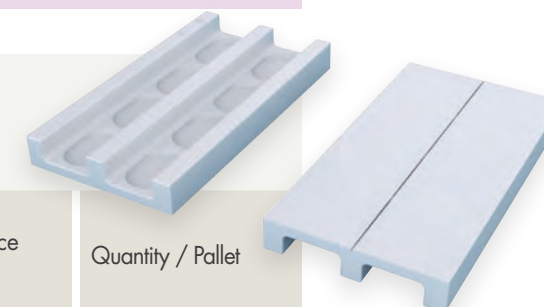
Eurolight® – specific

custom design

2 entries

Description	External length (mm)	External width (mm)	Existing external height (mm)	Fork clearance height (mm)	Quantity / Pallet
Eurolight® 5660	560	600	110	80	144
Eurolight® 1035	1000	350	110	70	26
Eurolight® 1135	1100	350	110	70	26
Eurolight® 1130	1120	300	120	80	72
Eurolight® 1160	1120	600	110	80	72

S-KI

S-KI can be used as an alternative or in addition to our Eurolight® pallets.
Its dimensions optimise your packaging and shipment volumes.
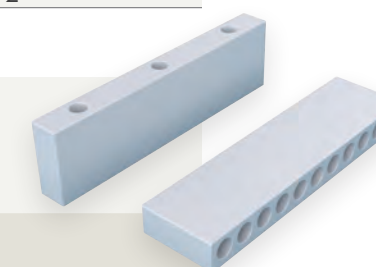
Description	External length (mm)	External width (mm)	External height (mm)	Material	Quantity / Pallet
S-KI 400	400	195	100		300
S-KI 1000	1010	220	140		60
S-KI 1120 H100	1120	80	100		128
S-KI 1120 H110	1120	225	110	airpop® 20 kg/m³	110
S-KI 1120 H120	1120	300	120		80
S-KI 1160	1160	200	100		100
S-KI 1200	1200	80	100		128

Do not hesitate to contact us to get the results of the tests conducted by LNE, as per the NF EN ISO 8611 standard.
Data calculated on standard product density. we can adapt our density (up to 100 kg/m³) to your specifications and needs.

Handling block

Custom cutting available as an option High material resilience and strength.
(Various applications: Martyr plate, S-KI)

Description	External length (mm)	External width (mm)	External height (mm)	Densities available	Quantity / Pallet
EPP BLOCK 86	800	600	150	20 to 100 kg/m³	16
EPP BLOCK 128	1200	800	150		8
MATERIAL: black or white expanded polypropylene					

HANDLING & STORAGE

Komebac®

Limitless packing, transport and storage options...

A logistic solution that finds its place in the **circular economy!**

Specialised in plastic packaging design, Knauf Industries offers individual solutions for each product, production and packaging line, for each mode of transportation.

From load-bearing packaging for the automotive sector to isothermal containers for pharma, the Komebac® range proposes and guarantees innovative, smart solutions for the storage, handling and transport of your products.

Light, reusable and ergonomic, Komebac® is a logical choice in today's industry, where reusing and recycling packaging are success factors for environmentally-friendly logistics.

Product bonuses

❯ **Custom design**: formats, materials, sizes, etc.

❯ **Lightweight,** reusable and ergonomic to use

❯ **Environmentally friendly** solution within a circular economy process

❯ **Sturdy, stackable and suitable** for palletisation on European format pallets

Characteristics

■ Materials: EPP, Piocelan, airpop®

■ Variety of colours and densities available

■ Differentiation and customisation: GALIA label holder, logo

■ Lid with hermetic sealing

FOCUS ON PRODUCT: Komebac® Cool, designed by Knauf Industries

DID YOU KNOW IT?

Knauf Industries is launching its own range of isothermal cool boxes made of expanded polypropylene, suitable for both business and private users.

Which **Komebac®** should you choose to package your product?
You will find the description and characteristics of our solutions below.

If you require a custom-designed product, do not hesitate to contact us!

Komebac®

Description	External length (mm)	External width (mm)	Existing external heights (mm)	Internal length (mm)	Internal width (mm)	Existing internal heights (mm)	Quantity / Pallet
Komebac® 43	395	295	130/230/280/330	355	255	100/200/250/300	160/88/72/56
Komebac® 64	595	395	130*/230/280*/330	555	355	100/200/250/300	80/40/32/28
Komebac® 104	985	395	310	940	350	290	24
Komebac® 125	1190	490	124/224/274/324	1135	435	100/200/250/300	42/22/18/14
Komebac® 43 Lid	395	295	30	-	-	-	456
Komebac® 64 Lid	595	395	44	-	-	-	26
MATERIAL**: black expanded polypropylene 60 kg/m³							

* References under development
** Other colours and densities are available. Contact us for more details.

Komebac® Cool

The most isothermal container in the Komebac® range

Description	External dimensions (L x W x H in mm)	Internal dimensions (L x W x H in mm)	Quantity / Pallet	Packaging
Komebac® Cool 35 L	470 x 340 x 410	358 x 288 x 350	36	Pallet
Komebac® Cool 20 L	470 x 340 x 265	358 x 288 x 205	54	Pallet
MATERIAL*: black expanded polypropylene 60 kg/m³				

* Other colours are available. Contact us for more details.

Komebac® Cargo

### Komebac® with an impressive effective volume

Description	External length (mm)	External width (mm)	External height (mm)	Internal length (mm)	Internal width (mm)	Internal height (mm)	Payload (litres)
Komebac® Cargo	1740	790	600	1620	610	430	425 litres
MATERIALS: airpop® and PS-PE Copolymer							

All our packaging solutions on **www.knauf-industries.com**

HANDLING & STORAGE

# A WORLDWIDE GROUP TO DRIVE YOUR PERFORMANCE
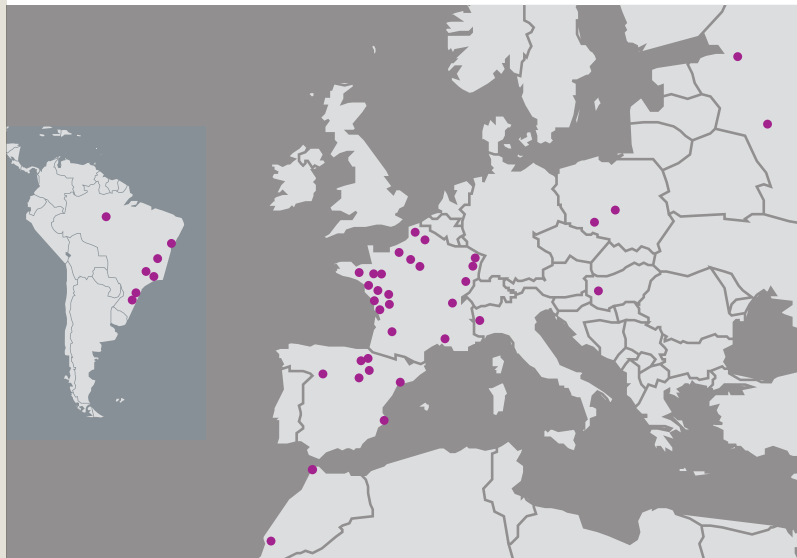
Knauf Industries, a division of the **KNAUF Group**, has a global reputation for its expertise serving insulation and industry. We are based in a number of international locations, in order to be closer to our customers.

Over 42 facilities worldwide (20 of them are in France) developing several technologies:

- Alveolar moulding (airpop®, EPP, PS-PE copolymer, etc.)
- Technidec® (custom cutting of technical foams)
- Extrusion and thermoforming
- Plastic injection moulding

INVENTING THE PACKAGING OF THE FUTURE
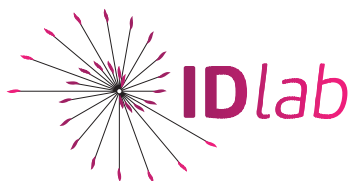
Our ID Lab department is made up of market specialists and material and application technology experts. We are owning testing and validation equipment to ensure that the solutions developed comply with customer specifications and the applicable standards.

It is our aim to provide you with relevant solutions, anticipate environmental and market requirements and develop specific packaging. For all your custom-designed products, we allow you to avail of the benefits of our high-performance, high-speed CAD tools and adapted production facilities.

Our upstream design process takes into account your product environment and your production lines. We conduct prototyping and testing in-house.

We devise and develop the connected solutions of the future (RFID, NFC), without losing sight of our ecodesign philosophy, that we never fail to apply when creating each new product.

KNAUFINDUSTRIES

› 40 years of experience
› Seriousness and reliability of the KNAUF Group
› Dedicated customer service department, attentive to your needs
› Production located less than 200 km from our customers
› Flexible and effective logistics for controlled lead times
› Continuous product and service quality process
› Certified quality system

FABRIQUÉ
EN FRANCE

Find
Knauf Industries
on Linkedin
in

Discover the
production process
of our airpop®
products

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