



A large iceberg floats in the ocean, with its tip visible above the water and a much larger, jagged mass submerged below. The sky is blue with light clouds.

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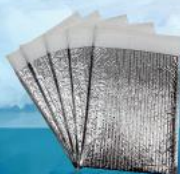
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Bizofol®

Radiant Heat Insulation Material

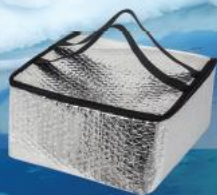
Bizofol® is a radiant heat barrier for reflective insulation, preventing heat transfer across spaces. The low emittance / high reflective aluminum foil / metalized film surfaces on one or both sides block up to 97% of the radiant heat, and therefore, a significant part of heat insulation. Bizofol® may incorporate one or two layers of air bubble, non-woven fabric, and may be laminated by reinforcing substrates. Bizofol® offers heat protective packaging solutions in different sizes - from envelope size to container liner for the protection of perishable goods. Bizofol® with superior heat and moisture insulation properties is widely used in the insulation of buildings, walls, attics, doors, ventilation ducts, and many other parts of the buildings. It can be frequently used for do-it-yourself (DIY) projects. In some special applications, it is possible to coat only one surfaces by aluminum while the other side can be coated by polyethylene in various colors, metallized film, sulfite or kraft paper.

We can test your products under any condition as you wish by adjusting heat and time parameters with our Bizofol® products at our Test CENTER.



Cool Mailer

2 Dimensional envelopes with adhesive flap and zipper closure options



Cool Bag

2 Dimensional gusseted bags with handle and zipper closure options



Cool Pharma

Temperature controlled cold chain packaging with 72-96 hours of transit time



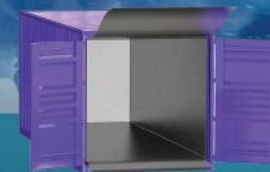
Cool Boxliner

Box liner solutions



Pallet Cover

Pallet covers in several norms



Container Liner

Container liner applications



Food

Fish and meat products, online food sales, catering services, frozen products, fresh fruit and vegetables, icecream, pastry, chocolate, fresh flowers



Logistics

Cold chain transportation, perishable cargo transportation, land , air , sea transportation and micro-macro distributions



Medicine/Medical

Medicine, vaccine, serum, blood transportation, medicinal and medical material transportation



Chemical Materials

Heat and cold sensitive all chemical materials

Cool Mailer

Cool Mailer

In envelope form with options of flap and adhesive tape, it provides thermal protection solution for heat sensitive and perishable products. It protects your products against external factors, with its adhesive tape application option it provides rapid solution.



Cool Mailer
It may be produced with various dimension and material combinations according to your unique needs.

APPLICATION AREAS



Food

Frozen products, dairy products, delicatessen products, chocolate



Logistics

Online sales distribution



Medicine and Medical

Medicine, vaccine, serum, blood and alike medical material transportation

In packaging, storing and distribution of all heat sensitive products.



ADVANTAGES

- Provides heat protection in your short term carriages.
- Liquid proof and puncture resistant.
- Flexible and light structure.
- Provides place advantage in your storage by virtue of its foldable and nestable structure.
- In addition to standard measures and designs, it may be produced in desired forms and printing options.

STANDARD Cool Mailer DIMENSIONS

Product Combination	Dimensions
Cool Mailer - MB2F	250x350mm 50mm flap
Cool Mailer - MB2F	350x350mm 50mm flap
Cool Mailer - MB2F	450x350mm 50mm flap
Cool Mailer - MB2F	550x350mm 50mm flap
Cool Mailer - MB2F	500x475mm 50mm flap

Cool **Mailer**

THERMAL INSULATION PERFORMANCE TEST (30°C)

Cool **Mailer**



MEASUREMENT SPECIFICATIONS

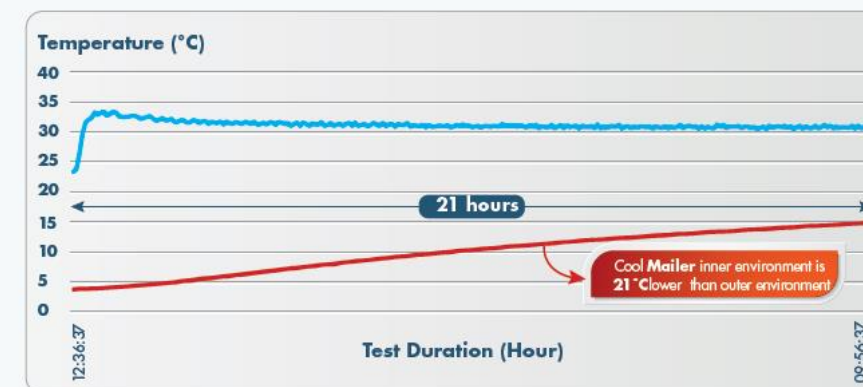
Material	Reflective Insulation Foil
Material Thickness	4mm +/- 0,5 mm
Form	Cool Mailer
Test Duration	21 Hours
Test Temperature	30 Degrees
Test Environment	Climate Chamber
Starting Time	5th April 12:36
End Time	6th April 09:56

TEST RESULTS

	Minimum °C	Maximum °C	Average °C
Cool Mailer Inner Environment	4,2	15,4	10,3
Outer Environment	23,4	33,5	31,2

EVALUATION

As a result of 21 hours of measurements made under conditions where outer environment temperature is averagely 31,2 °C, inner environment temperature of Cool **Mailer** has been observed to be 21 °C lower than outer environment temperature.



— Cool **Mailer** Inner Environment — Outer Environment

Cool Bag

Cool Bag

Cool **Bag** is a bag formed product designed to provide comfortable carriage and protection of heat sensitive products against all external factors and temperature changes. It may be produced with handle, zipper, tape and gusseted forms in desired dimensions.



Cool Bag
It may be produced with desired dimension and material combinations out of standard measurements.

APPLICATION AREAS



Food

Frozen products, dairy products, delicatessen products, chocolate



Logistics

Online sales distribution



Medicine and Medical

Medicine, vaccine, serum, blood and alike medical material transportation



Chemical Materials

Heat and cold sensitive all chemical materials

In packaging, storing and distribution of all heat sensitive products



ADVANTAGES

- Provides full protection against temperature changes occurred due to external factors during carriage.
- Maximizes customer satisfaction by preventing your products from melting and becoming deformed.
- Adds value to your brand with its printed and unprinted options.



Cool Pharma

Cool Pharma

Cool **Pharma** offers a pre-qualified packaging solution for the packaging and transportation of heat sensitive pharmaceuticals and medical supplies. It comprises EPS (styrofoam), Bizofol (bubble insulation material with reflecting surface) and cooling units.

Cool **Pharma** was developed in cooperation with industry leading pharmaceutical manufacturers and transporters.

Cool **Pharma** was tested for transit periods of 72 – 96 hours for products to be transported at 2 - 8°C and quality controls were applied both in winter and in summer.

Cool **Pharma** manufactured in different sizes, offers advantageous sizes customized to your needs

	Standard Sizes						
	XS	S	M	M-2	L	L-2	XL
Protection Period	48 hours	72 hours	72 hours	72 hours	72 hours	72 hours	96 hours
Outside Dimensions (mm)	360*305*370	430*380*405	555*455*400	633*437*419	565*455*545	633*437*539	795*555*545
Inner Box (Drug Container) Dimensions (mm)	177*125*120	245*201*120	370*268*120	440*245*120	370*268*245	440*245*245	595*370*245
Inner Box Volume	2,7 lt	5,9 lt	11,9 lt	12,9 lt	24,3 lt	26,4 lt	53,9 lt



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2



3

ADVANTAGES

- Provides an effective insulation with the combination of EPS (styrofoam) and Bizofol®
- This design prevents condensation and leakage in case of temperature loss.



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Cool **Boxliner**

Cool **Boxliner**

When Cool **Boxliner** is used as a liner in boxes of your products, it protects your products against deteriorations and decompositions by providing own inner temperature to stay at desired levels.



Cool **Boxliner**
It may be produced with various dimension and material combinations in line with your special needs.

APPLICATION AREAS



Food

Fish and meat products, frozen products, fresh fruits and vegetables, icecream, chocolate



Logistics

Online sales distribution, catering services, fresh flowers



Medicine and Medical

Medicine, vaccine, serum, blood and alike medical material transportation, medicinal and medical materials



Chemical Materials

Heat and cold sensitive all chemical materials



ADVANTAGES

- Minimizes heat changes
- Flexible, light and durable
- Water resistant and leakproof
- Puncture Resistant
- Easy and fast usage by virtue of its gusseted design
- As it is stored as folded, it takes a small place, minimizes storage costs
- Has more flexible structure than polystyrene boxes which are alternative solutions.
- As it has less fire risk than substitute products, provides economy in your fire insurance premiums

Cool **Boxliner**

THERMAL INSULATION PERFORMANCE TEST (30°C)

Cool **Boxliner**



MEASUREMENT SPECIFICATIONS

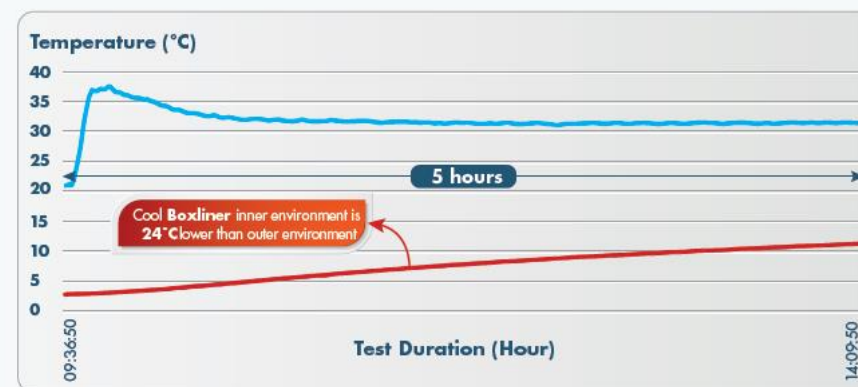
Material	Reflective Insulation Foil
Material Thickness	6 mm +/- 0,5 mm
Form	Cool Boxliner
Test Duration	5 Hour
Test Temperature	30 Degrees
Test Environment	Climate Chamber
Starting Time	6th June 9:36 6th
End Time	June 14:09

TEST RESULTS

	Minimum °C	Maximum °C	Average °C
Cool Boxliner Inner Environment	3,1	12,2	7,6
Outer Environment	20,7	37,4	31,6

EVALUATION

As a result of 5 hours of measurements made under conditions where outer environment temperature is averagely 31,6 °C, inner environment temperature of Cool **Boxliner** has been observed to be 24 °C lower than outer environment temperature.



— Cool **Boxliner** Inner Environment — Outer Environment

Pallet **COVER**

Pallet **COVER**

Pallet **COVER** protects your pallet load heat sensitive products against heat changes and impacts during transportation and storage.



Benefits of Top Flap

- Double thermal insulation
- State of the art technology
- Double protection against impacts

Pallet **COVER**
Pallet covers may be produced with desired dimension and material combinations besides our standard sizes

APPLICATION AREAS



Food

Fish and meat products, online sales distribution, catering services, dairy products, frozen products, fresh fruit and vegetables, icecream, pastry, chocolate and fresh flowers



Logistics

Cold chain transportation, perishable cargo transportation, land, air, sea transportation and micro-macro distributions



Medicine/Medical

Medicine, vaccine, serum, blood and alike medical and medicinal material transportation



Chemical Materials

Heat and cold sensitive all chemical materials

In packaging, storing and distribution of all heat sensitive products.



ADVANTAGES

- Minimizes heat changes due to external factors during carriage and storage
- By virtue of its foldable, stackable and light structure; it provides economy in
 - Warehousing costs
 - Transportation costs
 - Operational internal carriages
- Can be customized and printed
- Longer protection can be provided with different applications
- Water resistant, puncture resistant, leakproof.

Pallet **COVER**

Pallet **COVER IBC**

It is produced in the size of IBC tanks which are frequently used in the chemical industry. It protects the heat sensitive chemicals from getting crystallized, burned, frozen or lumped inside the IBC tank.



Pallet **COVER Velcro**

We provide a more practical and long lasting solution by our pallet covers with Velcro application on sides. It is also possible to use the same pallet cover for the pallets with different heights by applying velcro on the outer surface of the pallet covers. Thus, each side can be folded up in order to adjust the height.



Pallet **COVER Bottom Mat**

The insulation layer placed on the pallet base ensures that your products are fully protected against the hot and cold weather effects coming through the pallet base.



Pallet **COVER Breathable**

It protects perishable products such as fresh fruits, vegetables and flowers against condensation and harmful rays of the sun during transportation and waiting periods and ensures that perishable products maintain their temperature and humidity levels during transit.



Pallet **COVER**

THERMAL INSULATION PERFORMANCE TEST (30°C)

Pallet **COVER**

MEASUREMENT SPECIFICATIONS

Material	Reflective Insulation Foil
Material Thickness	7 mm +/- 0,5 mm
Form	Pallet COVER
Test Duration	24 Hour
Test Temperature	30 Degrees
Test Environment	Climate Chamber
Starting Time	4th April 00:52
End Time	5th April 00:20

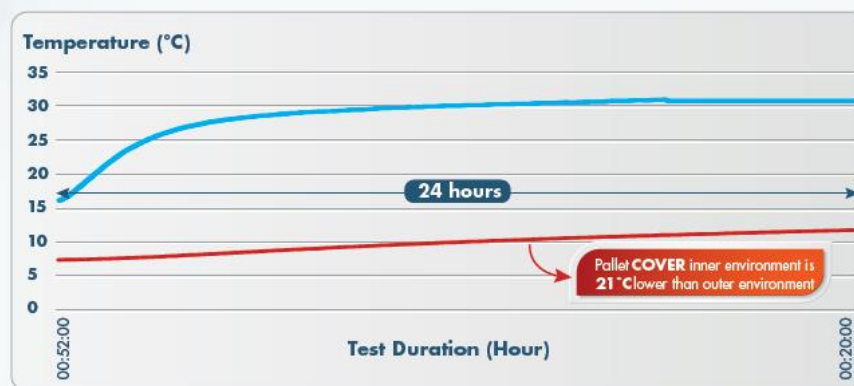


TEST RESULTS

	Minimum °C	Maximum °C	Average °C
Pallet COVER Inner Environment	6,9	11,30	9,37
Outer Environment	15,70	30,80	30,40

EVALUATION

As a result of 24 hours of measurements made under conditions where outer environment temperature is averagely 30 °C, inner environment temperature of Pallet **COVER** has been observed to be 21°C lower than outer environment temperature



— Outer Environment — Pallet **COVER** Inner Environment

Container Liner

Roll Kit

Roll Kit, designed to provide thermal protection in land, air and sea logistics, is rolled and designed to provide heat insulation of the environment. Its implementation is extremely easy.



Floor mat is, separately, provided if needed. Sizes: 2.35 x 6 m and 2.35 x 12 m.

Container Liner

It may be produced with desired dimension and material combinations out of standard container and truck measurements.

APPLICATION AREAS



Logistics

In providing inner thermal insulation of land transportation vehicles and containers.

Bubble Liner

Bubble Liner consists of a single piece of insulation material with magnets which make it reusable and contributes much to handling and installation.



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ADVANTAGES

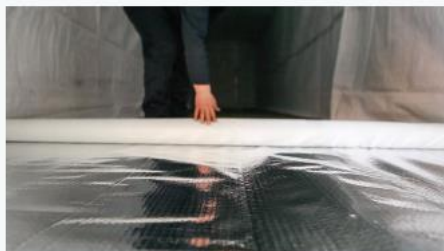
- Provides thermal insulation,
- Avoids condensation,
- Prevents damages caused by extreme temperature changes
- Prevents contamination of products
- Prevents damages caused by pest infestation,
- Eliminates the need of refer containers,
- Reduced the transportation cost,
- Protects from infiltration and molding,
- Can be produced in various combinations; PE woven, nonwoven reflective films and foils, bubble film and more,
- Can be applied in a short time of 5 minutes,
- Can be produced with or without covering the floor

Container Liner

5 Faces

Bizofol® Container Liner - 5 Faces is a radiant barrier liner mounted inside ocean containers to prevent adverse temperature and humidity changes by providing reflective insulation. 5 Faces Liner covers front, back, two side walls and the ceiling of the container. It does not have an integrated floor cover. However, a separate floor mat can be used.

Bizofol® Container Liner - 5 Faces is available for all existing container sizes.



PACKAGING CONTENT

20 ft DC 5 Faces and 6 Faces

8 magnets
2 x 9 meters ropes
2 carabiners
2 turnbuckles
2 x 2.5 meters ropes for stretching

40 ft DC / 40 ft DC HC 5 Faces and 6 Faces

16 magnets
2 x 16.5 meters ropes
2 carabiners
2 turnbuckles
2 x 2.5 meters ropes for stretching

45 ft DC HC 5 Faces and 6 Faces

18 magnets
2 x 19 meters ropes
2 carabiners
2 turnbuckles
2 x 2.5 meters ropes for stretching

PACKAGING DETAILS

PRODUCT	BOX DIMENSIONS	PALLET DIMENSIONS	MEGA TRUCK	40 ft DC HC
20 ft DC	35 x 120 x 20 cm	70 x 120 cm	28 Boxes / Pallet	24 Boxes / Pallet
40 ft DC 40 ft DC HC 45 ft DC HC	35 x 120 x 30 cm		18 Boxes / Pallet	16 Boxes / Pallet

* LOADING 30 PALLETS INTO 40 ft DC HC, 33 PALLETS INTO MEGA TRUCK



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6 Faces

Bizofol® Container Liner - 6 Faces is a radiant barrier liner mounted inside ocean containers to prevent adverse temperature and humidity changes by providing reflective insulation. 6 Faces Liner covers all inside surfaces of the container - front, back, two side walls, ceiling and floor. Its integrated floor cover is thicker and can withstand forklift loading. Bizofol® Container Liner - 6 Faces is available for all existing container sizes.



PACKAGING CONTENT

20 ft DC 5 Faces and 6 Faces

8 magnets
2 x 9 meters ropes
2 carabiners
2 turnbuckles
2 x 2.5 meters ropes for stretching

40 ft DC / 40 ft DC HC 5 Faces and 6 Faces

16 magnets
2 x 16.5 meters ropes
2 carabiners
2 turnbuckles
2 x 2.5 meters ropes for stretching

45 ft DC HC 5 Faces and 6 Faces

18 magnets
2 x 19 meters ropes
2 carabiners
2 turnbuckles
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PACKAGING DETAILS

PRODUCT	BOX DIMENSIONS	PALLET DIMENSIONS	MEGA TRUCK	40 ft DC HC
20 ft DC	35 x 120 x 20 cm	70 x 120 cm	28 Boxes / Pallet	24 Boxes / Pallet
40 ft DC 40 ft DC HC 45 ft DC HC	35 x 120 x 30 cm		18 Boxes / Pallet	16 Boxes / Pallet

* LOADING 30 PALLETS INTO 40 ft DC HC, 33 PALLETS INTO MEGA TRUCK



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Ice **PACK**

Cool **GEL**

Ice **PACK**

Ice PACK shall be frost at least hours at freezer or deep-freeze before usage. Melt down period of Ice PACK may change according to features of Bizofol® product and weather conditions. In order to provide maximum product protection usage with Bizofol® products is advised.



Ice **PACK**
In order to have long term
performance, usage with
Bizofol® products is
advised.

Cool **GEL**

Cool GEL packages are plastic cooling elements filled with cooling gel or liquid. Cool GELs do not have toxic characteristics and has high melting temperature, absorbs heat of high amounts until it gets warm by going over 0°C. Required number of Cool GEL packages changes according to your product and external environment weather conditions.

Cool **GEL**
Versatile, re-usable gel
package. Its gel formula
provides long term
coldness.
Usage with **Bizofol®**
products is advised.



APPLICATION AREAS

- Vaccine and medicine transportations
- Food storage and transportations
- All places where cold weather is required

Test **CENTER**

Test **CENTER**

Thermal insulation tests are performed between -20°C / $+150^{\circ}\text{C}$ in our climatisation cabin that has PID control system and by simulating external environment temperatures, durability and protectivity of our products are tested. By this means, we are able to provide solutions for our customers according to type and sensitivity of the products to be carried. Furthermore in accordance with our customers' requests, performances of their currently used isolation products are tested and alternative solutions are advised.



Test **CENTER**

Please contact us if you want us to perform a test for you.

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özerden

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