



# INOAC's innovative technology and partnership will forever change the cold distribution market.

"Safety, Quality, and Environment"—Providing solutions to cold distributors in the field.

Maintenance and improvement of delivery quality is the most important factor in the transport of any product including supermarket fresh foods, food industry ingredients, and temperature sensitive medical products.

INOAC Cool System: "Quality control of cold distribution" – INOAC's products and approach provide effective and ideal cold insulation solutions that securely and flexibly meet the needs of the most demanding distribution challenges.

## Inoac Cool System – Five Advantages

(1) A wide temperature range:

This system supports refrigerated product transportation with a broad range of temperature bands.

(2) Tailored solutions:

To give you the perfect cold environment for your products, we work with you to select the very best combination of materials to ensure optimum temperature control.

(3) Eco-friendly:

Reusable, save the environment and save money.

(4) Safe & Reliable:

No toxic or hazardous materials, safe and efficient cold insulation transport systems.

(5) After-sales service:

On-the-spot testing of product temperatures and fine-tuning ensure the optimum cold solution.

## COOL SYSTEM

Inoac Cool System

Distribution Examples







**Cold Gel Packs** 

Keeping Fresh & Cool

See Page 3



**Cold Transport Containers** 

> **Efficient Delivery Of** Cold Goods

See Page 13





**Home Delivery of Food Items** 



**Transport of Pharmaceuticals** 



# **Keeping Fresh & Cool**

Cold Gel Packs A must-have item to deliver fresher goods direct to the customer



Repeated-use cold gel packs lower costs.

Eco-friendly

Eco-friendly natural gel. (Food additive type and industrial gel are also available.)

Practical

Integrated design with an array of cooler boxes.

Durable

Diverse product range from a simple mate to a superior durable plastic container.

Hygienic

Antimicrobial type available to order.







**CAH Series** 

**PC Series** 

Racks for Cold Gel Packs

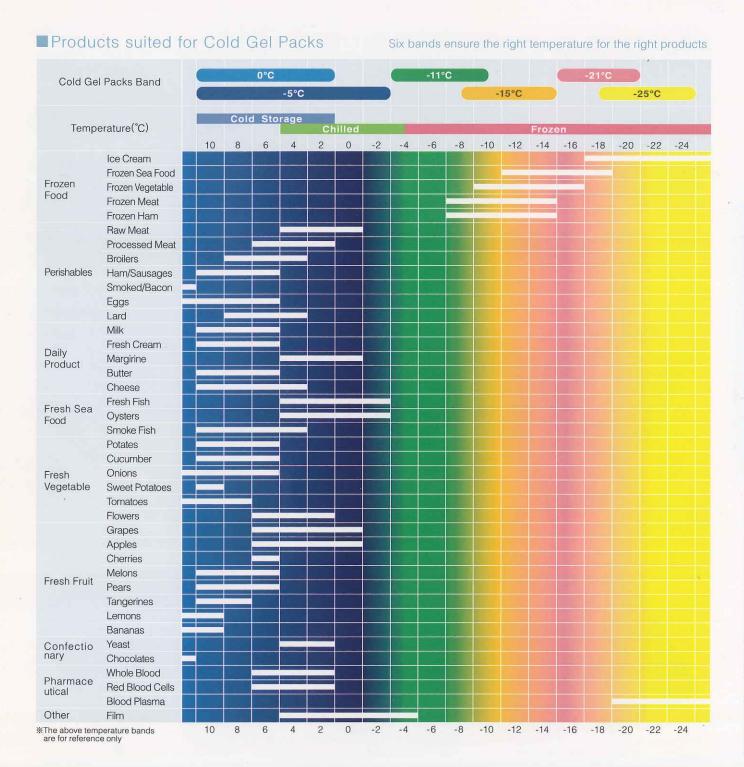
See Page 7

**COS Series** 

See Page 5~6

See Page 7

See Page 9





## **CAH Series**

## Reusable plastics container pack

- · Exceptional container strength
- · Wide range of sizes
- · Repeated-use and economical
- · Special sizes and special shapes available
- Company name, logo or information can be included on the cold gel pack (made to order)



CAH Series



#	Code	Size (W×L×T, mm)	weight (g)	pcs (pcs/cas	e)	Container type
1	CAH-200	90×150×19	210	80		
2	CAH-203	100×150×22	210	80	*	- Polyethlyene
3	CAH-250	55×195×30	275	70		plastic
4	CAH-351	80×187×30	352	50		container
5	CAH-500	140×195×25	530	30	*	

#	Code	Size (W×L×T, mm)	weight (g)	pcs (pcs/case)	Container type
6	CAH-501	115×187×30	500	30	
7	CAH-500P	78×200×41	530	30 *	- Polyethlyene
8	CAH-502P	70×300×40	500	40	plastic
9	CAH-503R	155×264×18	580	30 *	container
10	. CAH-510	140×220×22	540	30 *	

#### Application

Home delivery by consumer or agriculture cooperatives, or non-store retailing

Home delivery of milk and dairy products

Delivery with repeated use

Delivery of gifts & pharmaceuticals

Antibacterial

Antibacterial and anitimold treatments are available upon request, including antibacterial agent.



Easy stock cold storage (Product with the mark in the table)

Stacked packs are secure and Stable and will not collapse. The special design milk carton for efficient temperature shape prevents the cold gel packs from control. sticking together, allowing quick freezing in large quantities.



For keeping milk cartons cool (PAT.No.5-12689)

#### CAH Series



#	Code	Size (WxLxT, mm)	weight (g)	pcs (pcs/cas	e)	Container type
11	CAH-700P	80×198×55	700	30	*	
12	CAH-701	152×185×29	695	32		- Polyethlyene
13	CAH-702	135×330×24	865	18	*	plastic
14	CAH-800	142×235×30	847	20	*	container
15	CAH-802	200×288×20	940	20	*	

#	Code	Size (WxLxT, mm)	weight (g)	pcs (pcs/cas	e)	Container type
16	CAH-1000	200×210×33	1000	20		Dolumblumo
17	CAH-1001	180×280×29	1180	15	*	<ul> <li>Polyethlyene plastic</li> </ul>
18	CAH-1200	250×355×23	1560	12	*	container

\*mark indicates stackable



The rod cold gel pack is ideal for use in restricted spaces

#### **M**Application

Delivery of food items in the food service industry

Delivery of milk and daily products

#	Code	Size (mm)	weight (g)	pcs (pcs/case)	Container type
1	PC-100	26Φ×200	89	40	
2	PC-200	48×155×39	215	72	Polyethlyene
3	PC-300	45×200×42	265	40	plastic container
4	PC-500	56Φ×260	547	30	

CAH Series Only

## Racks for freezing Cold Gel Packs

Complete freezing of cold gel packs improves efficiency of order picking

- •To ensure optimum cold temperatures, please freeze the cold gel pack before use, failure to freeze completely will give only partial results.
- •The use of racks for freezing cold gel packs keeps everything neat and orderly and allows cool air from a refrigerator or freezer to easily circulate, which enables efficient and total freezing of the cold gel packs.
- · Easy order picking, carrying and handling



#	Mark	Size (mm)	pcs (pcs/case)
1	CAH-500 18pc type	External dimension 380×305×258 Inside dimension 337×285×246	10



#	Mark	Size (mm)	pcs (pcs/case)
2	CAH-503R 20pc type	External dimension 380×305×295 Inside dimension 350×285×283	

## Cold Gel Packs: Freezing Band

#### Cold Gel Packs are ideal for delivery of frozen food.

- Ideal for cold delivery of frozen food, when combined with dry ice, deep-frozen delivery of ice cream is possible.
- At a glance temperature bands, each temperature band has a different color gel. Even when packs are mixed, temperature bands are quickly identified and easily checked during order picking or sorting after collection.

## Temperature bands of Cold Gel Packs: Six bands from melting point 0 to -25°C are available and give a good range of temperature control

Temperature bands of cold gel packs	0°C	-5°C	-11°C	-15°C	-21°C	−25°C
Classification by the color of gel and cap						
	Blue	Blue with Black cap	Green	Yellow with Yellow Cap	Red	Yellow
Freezing temperature required by Freezer	≦-10℃	≦-15℃	≦-21℃	≦-25℃	≦-31℃	≦-35℃
Latent heat of fusion (kj/kg)	314	314	272	293	230	230
Melting Point (℃)	0	-3	-11	-15	-21	-24
Specific gravity	1.00	1.05	1.14	1.05	1.15	1.11
>Melting point	0.95	0.92	0.81	0.90	0.79	0.84
heat						

#### Cap for the -5℃ band

The  $0^{\circ}$ /- $5^{\circ}$ C band can be identified by the color of caps.



#### Cap for the -15℃ band

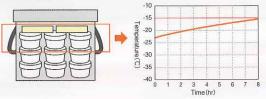
The 15°C/-25°C bands can be identified by the color of caps.



#### DATA

#### **Cold Ice Cream Endurance Test**

With the outside air temperature of 35°C, ice cream was precooled, to -25°C, placed in NeoAce, take out space before comma and covered by -25°C band cold gel packs.



**COS Series** 

A mat pack ideal for keeping milk and dairy products cool.



- ·The mat is placed directly on top of the milk crate.
- · Folded segments makes it easy to take out products and maintain cold temperature.

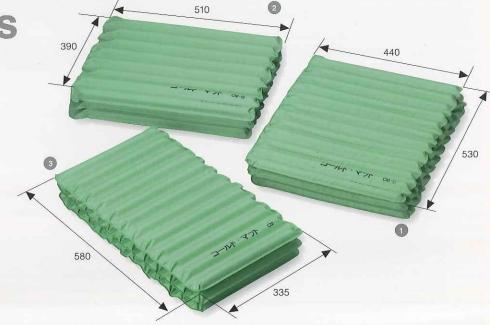
#### Application

#### Delivery of milk and daily products pcs (pcs/case) Container type Code COS- 800-5 280×520×10 954 18 COS-1002-5 305×245×22 1060 EVA 10 COS-1600-5 280×510×20 1754

#	Code	Size (mm)	weight (g)	pcs (pcs/case)	Container type
4	COS-1601-5	330×555×16	1762	10	Polyethlyene Plastic
5	COS-1603-5	300×500×18	1738	10	Container

## **CM Series**

A tubular mat type, tube Cold Gel Packs in a soft cover



- Products are easy to cover with these flexible wrap mats.
- **M**Application

**Cold Insulation for mid-size containers** 

#	Code	Size (WxLxT,mm)	weight (g)	(pcs/case)	Remark Innercontainer	Inner container	Outer container
1	СМ-В	440×530×26	2325	10	12 tubes	Polyethylene	Soft PVC
2	CM-T	510×390×29	2120	10	8 tubes	plastic container	containing
3	СМ-М	335×580×29	2240	10	12 tubes		nylon fablric

\*\*Possible to hold by L side

## **CO** Series

General-pupose pouch pack

#### Application

Home delivery and gifts (uncooked meat, ham, sausage, alcohololic beverage, etc.)

Take away Japanese / Western - Style confectionery, delicatessen or sea food.

Direct delivery from producers, delivery of perishables, pharmaceuticals, etc.

М	ark	weight (g)	Size (mm)	PC	Min. Case (pcs)
CO-	30	30	85×80	400	10
CO-	40	40	85×90	350	10
CO-	50	50	85×100	300	10
CO-	100	100	120×120	144	5
CO-	200	200	105×160	72	5
CO-	300	300	150×160	48	5
CO-	400	400	150×180	36	5
CO-	500	500	150×220	30	5

\*\*Please note that any product specification or other details may be changed without notice

## **CA Series**

High-grade pouch pack



Home delivery and gifts (uncooked meat, ham, sausage, alcohololic beverage, etc.)

Take away Japanese /Western -Style confectionery, delicatessen or sea food.

Direct delivery from producers, delivery of perishables, pharmaceuticals, etc



#### Nonwoven fabric pouch type

Prevents condensation on the cold gel pouches.

PKG Material	Remarks	Min. Case (pcs)	weight (g)	Size (mm)	Mark
		150	103	180×110	CA- 100
		100	153	170×110	CA- 150
Nylon-polyethylene		80	204	180×110	CA- 200
		60	305	210×165	CA- 300
		48	407	210×165	CA- 400
		36	507	210×165	CA- 500
podon	All side sealed	28	608	220×195	CA- 600
	sealeu	24	810	250×190	CA- 800
		16	910	255×240	CA- 900
Nonwoven		12	1010	255×240	CA-1000
		80	206	180×110	CAF-200
fabric Pouch		36	511	210×165	CAF-500

\*The product external size includes 10 mm seal width

## **Custom-Made Series**

We have an assortment of types: a slim type that can be used to showcase confectionery, a bag type suitable for ice packs, and an aluminum pouch.



Slim Type



Aluminum Pouch Type

## Milk Cooler Box

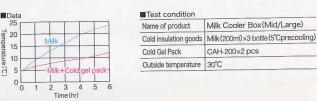
### Hamper for delivering milk

Increase cold power with a double structure of insulating material and interior box. When combined with INOAC's cold gel packs, you can be confident of superior temperature control during daytime home delivery.



# Printing on the box Brand name and store names can be printed or stickered. Treat your company to the best:make a special request, e.g. your company colors on the main box or lid. front side INOAC Co,Ltd

## A double structure of insulating material and interior box ensures cold storage performance



OA keyhole lock to prevent theft is available.

OPlease contact us for design and lot details.

#	Code	Size (mm)	Capacity	Feature	Pcs/ Case
1	Small Size	External dimension 265×235×205 Inside dimension 205×125×160	6 bot x 200ml	Suitable for hanging wall. The Inner box has a drainage hold	12 per case
2	Mid/LargeSize	External dimension 310×210×280 Inside dimension 235×145×240	8 bot x 200ml 2 bot x 900ml	Floor use only	12 or 16 per case

## Cold Gel Pack ${f Q} \& {f A}$



What are the cold gel packs made of?

#### Answer

A mixture of water, gel (natural polymer), preservative, and coloring agent is sealed in a polyethlylene plastic container bag or pouch. We mainly produce and sell cold gel packs made of gel (natural polymer). We also make cold gel packs from water-soluble polymers or synthetic polymers.



How many cold gel packs should I use in my cooler box?

#### Answer

Please contact us with the answer to the questions below, and we will be able to calculate the optimum quantity

- •Type of cooler box •Internal dimensions of cooler box hours for the temperature to be maintained
- ·Nature and type of product ·Temperature to be kept
- •Product precooling temperature •product weight etc We will be able to make an intial assessment, later we can carry out fine tuning test under actual delivery conditions to find the optimum solution.



When I used cold gel packs that were not completely frozen, the products were not kept cool enough. Why?

#### Answer

For optimum results the cold gel pack must be completely frozen, this allows the packs to maintain the target temperature. In addition, when freezing the packs, use a freezer or quick freezer with a minimum internal temperature of 10°C lower than the pack's temperature band. Please check the technical specifications.



I tried to cool a drink using the cold gel packs, but the drink wasn't that cold. Why?

#### Answer

The cold gel packs act as a cold blanket designed to prevent warming up, they do not make things significantly colder. Heat energy from the outside is absortbed by the cold gel packs thus mainntaining the temperature of any precooled product. A luke warm drink, for example, will be helped to stay lukewarm, not effectively made colder.



How many times can I use the cold gel packs?

#### Answer

The cold gel in a pouch, such as CA series, is generally for one-way use. However, unless the pouch is damaged, you can use the pouch repeatedly. (Terms of the quality guarantee is three months in summer season of normal use). The cold gel in a plastic container, such as CAH series, can also be used repeatedly. However, due to light or heat the consistency of the gel will deteriorate. If the container is damaged or the consistency of the gel deteriorates, please use a replacement.



How should I dispose of a used cold gel pack?

#### Answer

Temperature bands are subject to different disposal instructions. 0°C band gel: Dispose of the gel as burnabale rubbish and the container as recycle plastic (or as non-burnable rubbish, the classification differs accoding to the municipality). If you use the do not need the word in large quantities for business use, dispose of them as industrial waste. Freezing band gel: Dispose of the entire product including the container as non-burnable rubbish or industrial waste.

# **Efficient Delivery of Cold Goods**

Cold Transport Containers

With aluminum and polyethylene foam outer layer the containers are strong and sturdy. (50kg of tensile strength.)



High-performance cold insulation storage Superb shielding and insulation

Superb shielding and insulation provide outstanding cold storage.

Increased transport effecienty

Consolidated delivery and stacking operations increase loading efficiency.

Compact

When not in use, you can fold and stack containers away.

Ease of handling

Some products allow container stacking.

Easy maintenance

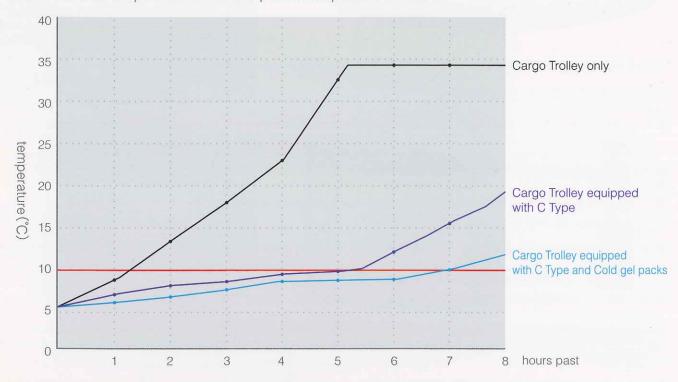
Outstanding strength and easy maintenance.

Cold Transport Containers lineup(NeoCarter)



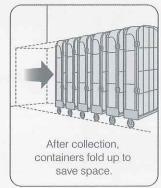
#### ■ NeoCarter C Type : Cold insulation data

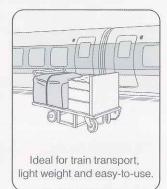
After precooling to 5℃, chilled food was loaded the NeoCarter C Type and exposed to an outdoor air temperature of 35℃ and product temperature recorded.



#### ■Advanced support from customized to regular thermal insulation









#### ■Precaution for handling

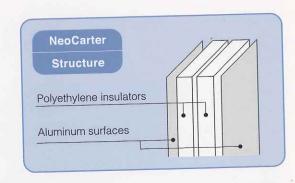
- •Depending on the product, combine with cold gel packs or thermal gel packs.
- ·Avoid the use of 60℃ and higher or -30℃ lower.

#### Cold Transport Containers lineup(NeoAce)

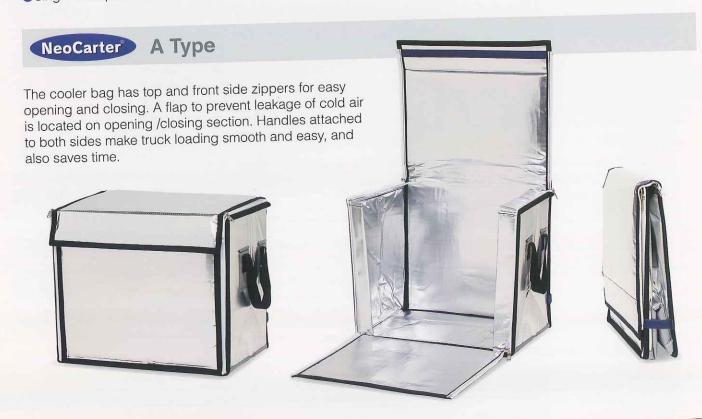




## Cold storage container with high insulating and shielding properties



- A composite material of aluminum and polyethylene foam is used for the surface materials. It reflects the sunlight and demonstrates outstanding insulating and cold storage performance. By using Inoac's original reinforced material, the surface material has a tensile strength of more than 100kg for the vertical and horizontal directions.
- The handle area of box type is designed to support 50kg.
- ●Four standard products A, B, C and S types are available.
- •We have stocks of standard products, ready for immediate order dispatch.
- Ideal delivery of cold storage goods. When combined with cold gel packs, more effective cold insulation is
- When not in use, containers fold up very compact. No more wasted space in the warehouse or truck luggage compartment.
- Easy to clean with water or a neutral detergent.
- Single unit special orders and custom designs are available.



 The container front and side zippers make it easy to load/unload products.

#### Application

Small deliveries of chilled foods

Transport of plastic container including chilled foods

Code	Inside size (mm)	Internal volume (ℓ)
A-1	400×350×300	40
A-2	400×350×450	60
A-3	450×350×450	70
A-4	500×350×450	75
A-5	550×350×450	85
A-6	600×450×450	120

Code	Inside size (mm)	Internal volume (£)	
A-7	650×450×450	130	
A-8	700×450×450	140	
A-9	750×450×450	150	
A-10	590×400×500	115	
A-11	735×475×435	150	
A-12	650×455×460	135	

#### NeoCarter B Type

Cooler bag with a top side zipper for easy opening and closing.







- •Only the top cover can be opened and closed with the zipper.
- · A reliable bag well suited for small deliveries of food items.

#### **Application**

	Small deliveries of chilled foods
Transport	of plastic container including chilled foods

size (mm)	Internal volume (ℓ)
400×350×450	60
500×350×450	75
600×450×450	120
700×450×450	140
	(mm) 400×350×450 500×350×450 600×450×450

#### Cooler inner bag for folding containers

The bag is placed inside a folding container and in combination with cold gel packs prevent product's temperature from rising. This system allows containers with bags to be stacked and makes truck loading quick and easy. The bags fold up and take up little space in the luggage compartment of a truck. Single unit custom-made sizes can be ordered.

Code	Size (External,W×D×H,mm	
40L Type	490×330×250	

Code	Size (External,W×D×H,mm)
50L Type	490×330×300



#### >> How to fold >>

Slowly flatten the bag from above and fasten the side with the velcro type tape.Bag volume will be reduced to less than 20% of the original and takes up little storage space after delivery.



Remove from a container



Press down from above



Fasten both sides with velcro tape



Folding complete

## NeoCarter C Type

## Popular Cage Trolley Type





- Cooler cover for installing inside of a case trolley.
- Outstanding cold storage performance, and quick no dash needed/unloading.
- Option of a zipper type or velcro type fastener for opening.

#### Application

Delivery of chilled foods to supermarket

Low temperature transportation of fresh fish and meat

Code	Size (mm)	Inner volume (٤)	Remark
C-1	730×550×1450 **For outersize of Cage Trolley 800W×600D×1700Hmm	580	
C-1M	730×550×1450 %For outersize of Cage Trolley 800Wx600Dx1700Hmm	580	Velcro type
C-2	790×600×1450 %For outersize of Cage Trolley 850Wx650Dx1700Hmm	687	
C-2M	790×600×1450 **For outersize of Cage Trolley 850Wx650Dx1700Hmm	687	Velcro type

#### NeoCarter S type

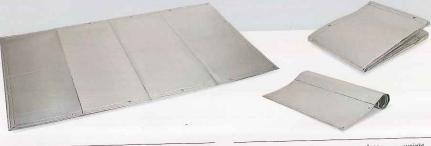
## Sheet type with exceptional flexibility

- Sunlight shielded for loading platform.
- Cover cold products with the sheet to prevent product temperature from rising.

#### Application

#### For truck platform

Cover cold products with the sheet to prevent product temperature from rising



size (mm)	Area (m²)	weight (kg)
1200×2000	2.40	1.0
2400×3000	7.20	2.4
3600×5400	19.44	6.6
	(mm) 1200×2000 2400×3000	(m <sup>r)</sup> (m <sup>2</sup> ) 1200×2000 2.40 2400×3000 7.20

Code	size (mm)	Area (m²)	weight (kg)
S-4	1600×2100	3.36	1.1
S-5	1800×2900	5.22	1.9

## NeoCarter Special type

We design the best system for your products and your delivery vehicle.

## Folding C Type

When not in use, trolleys fold up for compact storage.







#### C Type for six-wheel trolleys





#### **Dust proof cover**

Light and easy-to-use dust cover.



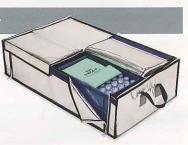
#### Inner bag 25 liter x 2 pc

The two sections enable separate transportation of chilled and dried items in one container.



#### Light truck shipper

When delivering milk, this "Shipper" is loaded and used on the carrier of delivery

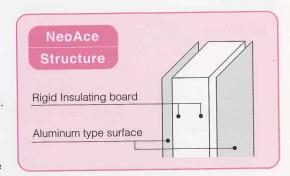


# NeoAce®

Lightweight container with excellent constant temperature control.

Higher level of cold storage control

- As compared with NeoCarter, NeoAce has better cold insulation control.
- •We designed the optimum system to meet your requeirement, e.g. for cage trolleys or for pharmaceuticals delivery.
- All types are custom-made
- Options such as cold gel pack pockets or card holders are available



## NeoAce Neo Ace For Cage Trolleys





Application

For delivering frozen foods and ice cream to stores



## NeoAce Folding Box Type

Folding box with excellent durability, take space out before comma light blocking and insulating properties.

\*Ideal for small deliveries, custom-made to meet your needs







#### Application

Small deliveries of frozen goods and ice creams 💌 Low temperature transportation in the transportation business



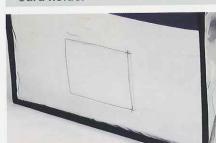
Cold delivery and transport of phamaceuticals to hospitals and drugstores

## **Regular Options**

**Pocket for Cold Gel Packs** 



Card holder



Shoulder strap



PP strap



Sticker



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page

P.9

P.10

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1

2

3

Code

СМ-В

CM-T

CM-M CO- 30 CO- 40 CO- 50 CO-100

CO-200 CO-300 CO-400 CO-500 CA- 100 CA- 150

CA- 200

#### \_\_\_\_

Series name	Code	page	#	Series name
	CAH-200		1	CM Series
	CAH-203		2	
	CAH-250		3	
	CAH-351		4	
	CAH-500		5	
	CAH-501	P.5	6	
	CAH-500P		7	
	CAH-502P		8	CO Series
CAH Series	CAH-503R		9	CA Series
	CAH-510		10	
7	CAH-700P		11	
	CAH-701		12	
	CAH-702		13	
	CAH-800	P.6	14	
	CAH-802	F.0	15	
	CAH-1000		16	
7	CAH-1001		17	
	CAH-1200		18	
	PC-100		1	
PC Series	PC-200	P.7	2	
PC Series	PC-300	P./	3	
	PC-500		4	
CALL and an analysis for forming	CAH-500	P.7	- 1	
CAH series racks for freezing	CAH-503R	F./	2	Milk cooler box
	COS-800-5		1	MIIIK COOIEI DOX
*	COS-1002-5		2	
COS Series	COS-1600-5	P.9	3	
	COS-1601-5		4	

COS-1603-5

	CA- 300		
	CA- 400		2
	CA- 500	-	
CA Series	CA- 600	P.10	-
	CA- 800		-
	CA- 900		-
	CA-1000		× 21
	CAF-200		-
	CAF-500		-
Milk cooler box	Small size	P.11	1
MIIK COOIEI DOX	Mid/Large size	EALL	2

Inoac cool system

#### ■Cold Transport Containers

Series name	Code	page	Series name	Code	page
NeoCarter A Type	A-1	P.15	NeoCarter S Type	S-1	P.17
	A-2			S-2	
	A-3			S-3	
	A-4			S-4	
	A-5			S-5	
	A-6		NeoCarter Special Type	Folding C type	P.18
	A-7			C Type for six-wheel trolleys	
	A-8			Dust proof cover	
	A-9			Inner bag 25 litter x 2 pc	
	A-10			Light truck shipper	
	A-11		NeoAce	NeoAce for cage trolleys	P.1
	A-12			Z Pack	P.20
NeoCarter B Type	B-1	P.16		Folding box type	
	B-2			For pharmaceuticals delivery	
	B-3		Regular option list	Pocket for Cold Gel Packs	P.21
	B-4			Card holder	
Neo Carter C Type	C-1	P.17		Shoulder strap	
	C-1M			PP strap	
	C-2			Sticker	
	C-2M				

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Please be noted that product specification may be changed without any notice.

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