PRONGO®

A LAST MILE DELIVERY SOLUTION THAT ACTUALLY DELIVERS

PLUSS® | TECHNOLOGY FOR A BETTER WORLD

PLUSS®

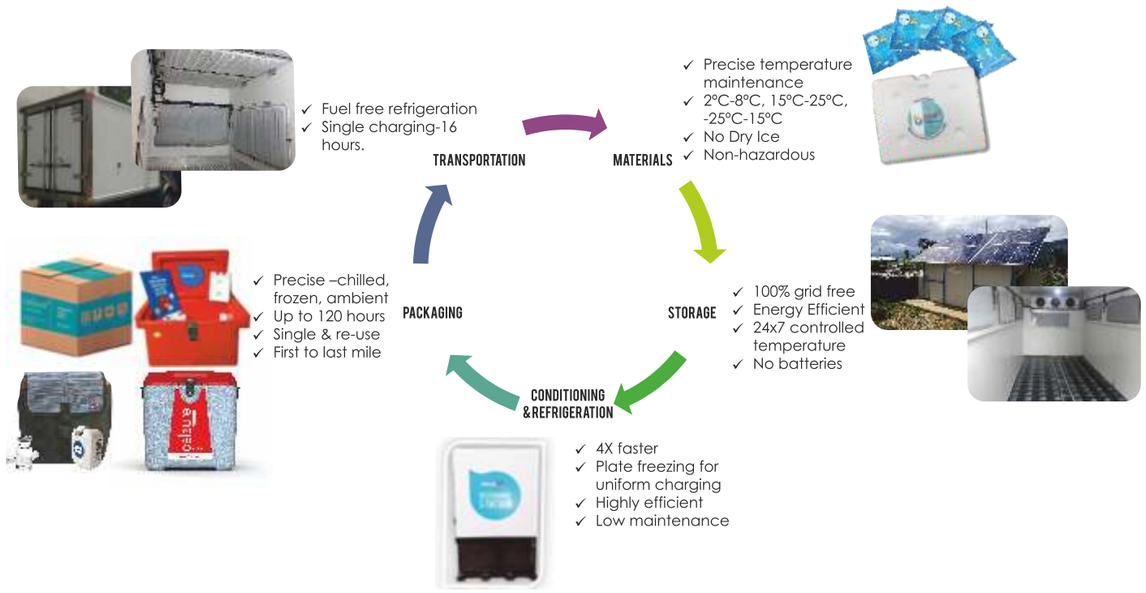
TECHNOLOGY FOR
A BETTER WORLD

Established in 1994, Pluss Advanced Technologies Pvt. Ltd. is a materials research and manufacturing company involved in the field of speciality polymeric additives and Phase Change Materials. Research and innovation has been the focus of the company since inception. The company pioneers in creating cost effective and innovative products and applications that provide impacting solutions.

Experience, interdisciplinary thinking and practical skills form the growth guidelines for PLUSS®. The company has an equity infusion from Tata Capital Innovations Fund.

Sustainable temperature controlled storage and distribution solutions

Based on patented Phase Change Material (PCM) technology



PRONGO®

THE IDEAL TEMPERATURE CONTROL SOLUTIONS FOR FOOD AND PHARMA INDUSTRIES

PronGO® from PLUSS® offers an innovative range of solutions to enable precise temperature control transport of temperature sensitive food, beverages and pharmaceuticals.

It comes with the flexibility of choosing three different temperature ranges – Frozen, Chilled and CRT. The retention time of these temperatures is controlled by thermoTabs empowered with the savE® range of Phase Change Materials (PCMs) which provide accurate temperature management for durations of up to 48 hours and are reusable for very long time.

It is segmented into three broad categories on the basis of applications: Chilled (2° C to 8°C), Frozen (-25°C to -18°C) and CRT (15°C to 25°C).

Steps of freezing and loading

1 Put the thermotab in the recharge station to cool

2 Place the charged (cooled) thermotabs inside the box

3 Load your product & get ready to **GO**

FROZEN PRODUCT DELIVERY

Industries catered


ICE CREAM


FROZEN FOOD


MEAT AND SEA FOOD

Hard Case

Model No.	Temp. Range*	Backup Duration (hrs.)	Ext. Dimensions (mm)	Payload Dimensions (mm)	Payload Vol. (ltr.)	Vol. Wt. (kgs)
Last Mile Hard Case for Frozen Products						
PronGO® 25LHC16F	Frozen	16	500x335x308	320x202x173	11.2	12.7
PronGO® 25LHC12F	Frozen	12	500x335x308	320x202x173	11.2	8
PronGO® 50LHC16F	Frozen	16	640x400x420	438x273x263	31.4	19
PronGO® 100LHC16F	Frozen	16	775x550x455	598x378x273	65.8	31
PronGO® 150LHC16F	Frozen	16	845x600x530	668x428x348	99.5	38

Cover

Last Mile Soft Case for Ice Cream Pack

Model No.	Temp. Range*	Backup Duration (hrs.)	Dimensions (mm)
PronGO® Ice Cream Cover	Frozen	1	300 x 240 x 11
PronGO® 10LSP10	Frozen	2	360 x 300
PronGO® Bottle Cooler	Frozen	2	110 x 300

thermoTab™

Frozen PCM Cartridges				
thermoTab™	Dimensions (mm)	Max Incorporable Volume (L)	PCM	Qty per tab (kg)
thermoTab™400	165 x 95 x 35	0.31	HS23N	0.36
			HS26N	0.38
thermoTab™600	190 x 122 x 36	0.53	HS23N	0.57
			HS26N	0.6
thermoTab™630	265 x 130 x 26	0.57	HS23N	0.61
			HS26N	0.64
thermoTab™1200	295 x 235 x 30	1.2	HS23N	1.36
			HS26N	1.44

Pouches

Frozen PCM Pouches			
PCM	Pouch Size	No. of cells	Qty per pouch (kg)
savE® HS23N	200 x 120	Single celled	0.30
	150 x 157	Single celled	0.30
	205 x 105	Two celled	0.12
	610 x 157	Four celled	0.60
savE® HS26N	178 x 157	Single celled	0.33
	240 x 157	Single celled	0.50
	220 x 157	Single celled	0.47
	315 x 315	Two celled	1.46
	440 x 260	Two celled	1.63

Bags

Model No.	Temp. Range*	Backup Duration (hrs.)	Ext. Dimensions (mm)	Payload Dimensions (mm)	Payload Vol. (ltr.)	Vol. Wt. (kgs)
Last Mile Soft Case | *Backup 10 hours (Bags for Last Mile Delivery and Intracity Shipments)*						
PronGO® 3L12H-08P	Frozen	10	200x200x220	143x143x153	3	1.5
PronGO® 20L12H-08P	Frozen	10	375x215x490	310x150x450	20	6.6

CHILLED PRODUCT DELIVERY

Industries catered


DAIRY & BEVERAGES


BAKERY


FRUITS & VEGETABLES

Hard Case

Model No.	Chilled	Backup Duration (hrs.)	Ext. Dimensions (mm)	Payload Dimensions (mm)	Payload Vol. (ltr.)	Vol. Wt. (kgs)
First Mile Hard Case for Chilled Products						
PronGO® 25LHC48C	Chilled	48	500x335x308	320x202x173	11.2	11.4
PronGO® 50LHC48C	Chilled	48	640x400x420	438x273x263	31.4	24
PronGO® 100LHC48C	Chilled	48	775x550x455	598x378x273	65.8	29

Cover

Last Mile Soft Case

Model No.	Temp. Range*	Backup Duration (hrs.)	Diameter and Height (mm)	Max. no. of milk pouches /bottle	Max. weight capacity (kg)
PronGO® 10LSP10	Chilled	2	360x300	20	10
PronGO® Bottle Cooler	Chilled	2	110x300	1	0.5
PronGO® Ice Cream Cover	Chilled	1	300x240x11		

thermoTab™

Chilled PCM Cartridges				
thermoTab™	Dimensions (mm)	Max Incorporable Volume (L)	PCM	Qty per tab (kg)
thermoTab™400	165 x 95 x 35	0.31	HS3N	0.35
			HS7N	0.37
			HS10N	0.37
			HS15N	0.34
thermoTab™600	190 x 122 x 36	0.53	HS3N	0.52
			HS7N	0.55
			HS10N	0.56
			HS15N	0.52
thermoTab™630	265 x 130 x 26	0.57	HS3N	0.59
			HS7N	0.63
			HS10N	0.64
			HS15N	0.6
thermoTab™1200	295 x 235 x 30	1.2	HS3N	1.27
			HS7N	1
			HS10N	1.26
			HS15N	1.28

Pouches

Chilled PCM Pouches			
PCM	Pouch Size	No. of cells	Qty per pouch (kg)
savE® HS3N	190 x 157	Single celled	0.15
	125 x 157	Single celled	0.12
	205 x 105	Two celled	0.1
	495 x 157	Three celled	0.70
savE® HS7N	190 x 157	Single celled	0.15
	157 x 157	Single celled	0.2
	210 x 110	Single celled	0.22
	610 x 157	Four celled	0.94
savE® HS10N	190 x 157	Single celled	0.32
	125 x 157	Single celled	0.11
	205 x 105	Two celled	0.12
	495 x 157	Three celled	0.78
savE® HS15N	190 x 157	Single celled	0.32

Bags

Model No.	Temp. Range*	Backup Duration (hrs.)	Ext. Dimensions (mm)	Payload Dimensions (mm)	Payload Vol. (ltr.)	Vol. Wt. (kgs)
Last Mile Soft Case | *Backup 10-12 hours (Bags for Last Mile Delivery and Intracity Shipments)*						
PronGO® 3L12H-08P	Chilled	10-12	200x200x220	143x143x153	3	1.5
PronGO® 20L12H-08P	Chilled	10-12	375x215x490	310x150x450	20	6.6

PHARMA LAST MILE DELIVERY

Industries catered

PHARMA

DIAGNOSTICS LABS

ONLINE MEDICINE DELIVERY

Bags

Model No.	Frozen	Backup Duration (hrs.)	Ext. Dimensions (mm)	Payload Dimensions (mm)	Payload Vol. (ltr.)	Vol. Wt. (kgs)
Last Mile Soft Case | *Backup 10-12 hours (Bags for Last Mile Delivery and Intracity Shipments)*						
PronGO® 3L12H-08P	Chilled	10-12	200x200x220	143x143x153	3	1.5
PronGO® 20L12H-08P	Chilled	10-12	375x215x490	310x150x450	20	6.6

PRONGO®

RECHARGE STATION

Dedicated PCM charging station for PCM battery packs used in **Pharmaceutical & Food transport.**

PronGo® Recharging Stations enable efficient and quick charging of Phase Change Materials (PCM). PLUSS® offers the entire ecosystem of temperature controlled solution comprising recharging stations and PCM filled encapsulations tailor designed for different e-retailers and cold -chain operations where controlled temperature plays crucial role in keeping the frozen or chilled products safe.

There are two different sized recharging stations offered

80kg cooling capacity - 80K12H26N

247kg cooling capacity - 247K16H26N

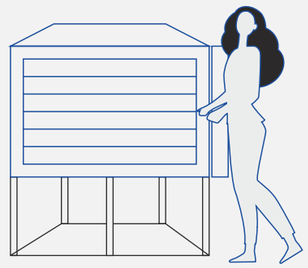
Product features

- High performance plate - type freezers
- Low maintenance required; designed for rugged use
- Lower operating cost compared to regular freezing systems
- Most energy efficient; over 40% lower energy consumption
- Quick PCM charging within 12-14 hours

Product Specifications

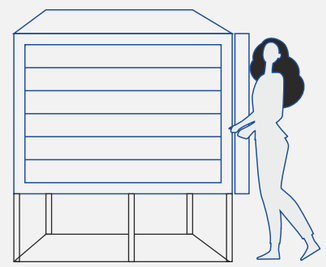
MODEL: 80K12H26N

Specifications	Parameters
Recharging Station Capacity	Up to 80kg of PCM at a go
Recharging time for -26°C PCM	Within 12 hours
Lowest temperature of the Station	-33°C to -30°C
Recharging station dimensions	1216mm x 932mm x 1416mm (LxBxH)
No. of charging plates/trays	6
Tray dimensions	855mm x 675mm x 36mm



MODEL: 247K16H26N

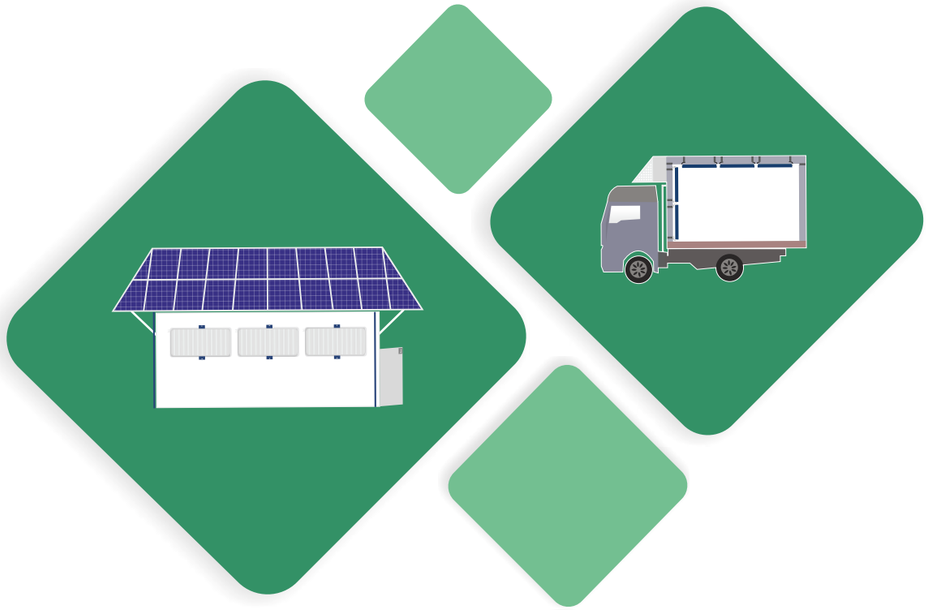
Specifications	Parameters
Recharging Station Capacity	Up to 247kg of PCM at a go
Recharging time for -26°C PCM	Within 14-16 hours
Lowest temperature of the Station	-33°C to -30°C
Recharging station dimensions	1270mm x 1320mm x 1800mm (LxBxH)
No. of charging plates/trays	11
Tray dimensions	965mm x 950mm x 36mm



PCM BASED TRUCKS AND COLD-ROOMS

powered by

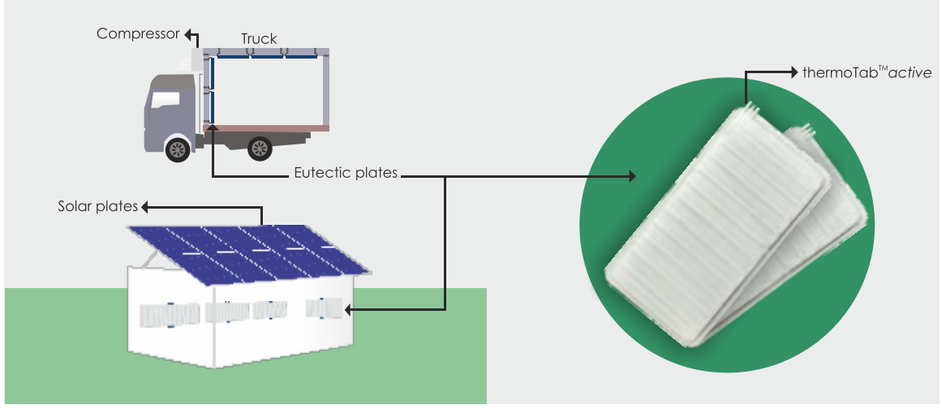
thermoTab™*active*



WHAT ARE thermoTab™*active* PLATES?

The thermoTab™*active* plate is a set of cold formed and welded sheet of steel. The interior section of the plates have evaporator coils running through with Phase Change Material being filled in the remaining space. The evaporator coils housed inside the plates are in direct contact with the PCMs enabling efficient freezing performance. The freezing starts from the surface of the coil forming layers until the entire volume of PCM around the coil is frozen. During discharge cycle, the PCM closer to the surface of the plates melts first, thereby providing cooling inside the insulated space of the truck or cold storage.

TRUCK & COLD ROOM



Salient Features

- HUGE COST SAVING AGAINST DIESEL REEFER TRUCKS OR ELECTRICITY RUN COLD-ROOM
- LOW MAINTENANCE COST
- QUICK TO CHARGE
- MAINTAINS CONSTANT TEMPERATURE
- 24X7 OFF-GRID COOLING AND PRESERVATION
- CLEAN ENERGY

Applications

PHARMA - FROZEN AND CHILLED

FOOD - FROZEN AND CHILLED

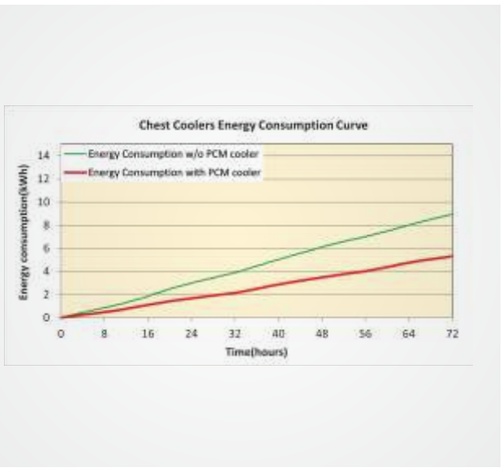
ENERGY SAVING
CHEST FREEZER
USING savE® PCM

Save upto 30% of energy per chest freezer/cooler (300 ltr)

- Saving 440 units per year
- Saving ₹ 4,400 per year
- Reduce 516 kg of CO_2 emissions per year/per freezer!

5,00,000 chest freezers/coolers are added each year in India, leading to a potential of:

- Saving 600 MW of energy per year
- Equivalent to adding 43,200 acres of forest land
- Reducing 108 megatons of CO_2 per year



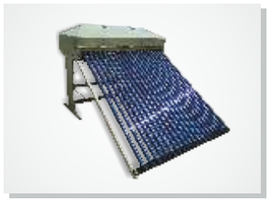
Pouches

PCM	Pouch Size	No. of cells	Qty per pouch (kg)
savE® HS01	360 x 157	Two celled	0.60
	630 x 157	Three celled	1.10
	495 x 157	Three celled	0.70
savE® HS3N	495 x 157	Three celled	0.70
savE® HS7N	495 x 157	Three celled	0.70
	610 x 157	Four celled	0.94
savE® HS10N	135 x 157	Single celled	0.20
	495 x 157	Three celled	0.78
savE® HS15N	190 x 157	Single celled	0.32
savE® HS18N	250 x 157	Two celled	0.365
savE® HS23N	250 x 157	Two celled	0.38
	360 x 157	Two celled	0.70
	495 x 157	Three celled	0.80
	630 x 157	Three celled	1.28
	610 x 157	Four celled	0.94
savE® HS26N	495 x 157	Three celled	0.80
savE® HS30N	495 x 157	Three celled	1.00

Innovations

MiraCradle® Neonate Cooler

Freeze Free Vaccine Carrier



AAGUN

celsure®

Members

National Centre of Cold Chain Development. NCCD is an autonomous body established by the Government of India with an agenda to positively impact and promote the development of the cold-chain sector in the country.

India Energy Storage Alliance. IESA was launched in 2012 to help technology and system integration companies involved in energy storage and microgrids to understand and capture the opportunities in the growing markets.

Clean Energy Access Network is an all India representative organization launched in 2014 with a clear mandate to support, unify and grow the decentralized clean energy sector in India.

Reichs-Ausschuss für Lieferbedingungen (RAL). Several active PCM enterprises formed the Quality Association PCM in 2004 to develop proper quality assurance procedures.

Awards

Supply Chain Innovation Award
for Celsure®- shipping solution
for pharmaceuticals

Cold Chain innovation of the year - 2016 for Celsure®- shipping solution for pharmaceuticals

Confederation of Indian Industry

CII Industrial Innovation Award - 2014 & 2017

Innovative Technology Award - 2015
Healthcare category

FICCI- DST Lockheed Martin Award - 2015

MIT Innovators under 35 India Award - 2016 & 2017

PLUSSTAINABLE

/plʌsˈsteɪnəb(ə)l/

able to maintain the optimal rate or level to meet the needs of the present without compromising the needs of future generations, **the PLUSS way.**

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PLUSS®
TECHNOLOGY FOR A BETTER WORLD

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