



# laminarmedica

insulated  
shipping  
systems

A total solution  
to the problem  
of shipping  
temperature  
sensitive products  
worldwide



MEDIPHASE®-15  
PHASE  
CHANGE  
MATERIAL

to keep products frozen



# MEDI PHASE®-15 Eliminate the need for dry ice

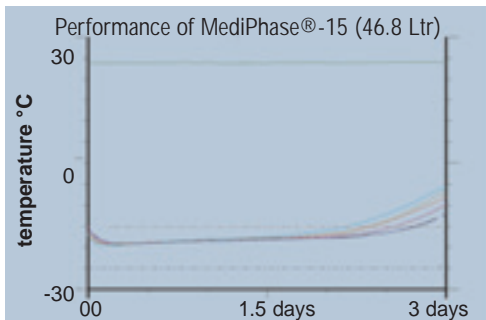
Laminar Medica specialises in the design, test, manufacture and validation of insulated shipping systems used by the pharmaceutical and biotech industries globally. These systems protect vaccines, drugs, blood and associated medical products from the extremes of temperature during transportation.

To herald the launch of our MediPhase®-15 PCM's we have validated a range of three shipping systems designated the MediPhase®-15 (4.8 Ltr), the MediPhase®-15 (21.1 Ltr) and the MediPhase®-15 (46.8 Ltr).

This is just a starter range of a small, medium and large system to demonstrate the scalability of the solution. We are able to validate shipping systems of any size using the MediPhase®-15 PCM material. Please contact our Sales Department for more information.



MediPhase®-15 (4.8Ltr)



MediPhase®-15 (21.1Ltr)



MediPhase®-15 (46.8Ltr)

## MediPhase®-15 specifications

### MediPhase®-15 (4.8 Ltr)

Insulated Container: Meditherm 4.0  
 Outside Dims: 450 x 400 x 330mm  
 Payload Space: 245 x 185 x 105mm (4.8Ltr)  
 Qty PCM packs: 12 x 0.6Kg  
 System Weight: 9.4Kg

### MediPhase®-15 (21.1 Ltr)

Insulated Container: Meditherm 9.6  
 Outside Dims: 575 x 525 x 555mm (incl. Pallet Feet)  
 Payload Space: 360 x 255 x 230mm (21.1Ltr)  
 Qty PCM packs: 16 x 1.0Kg  
 System Weight: 20.4Kg

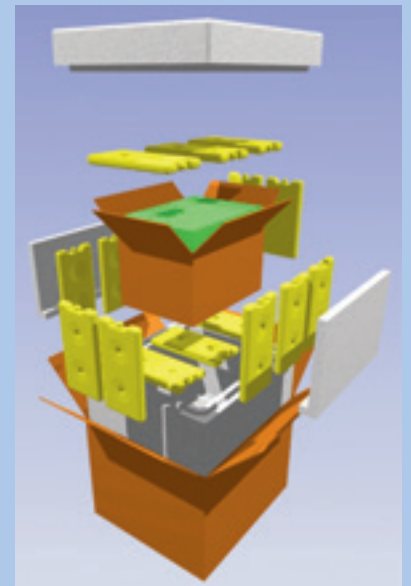
### MediPhase®-15 (46.8 Ltr)

Insulated Container: Meditherm 9.1  
 Outside Dims: 575 x 525 x 835mm (incl. Pallet Feet)  
 Payload Space: 360 x 255 x 510mm (46.8Ltr)  
 Qty PCM packs: 26 x 1.0Kg  
 System Weight: 31.8Kg

Whilst dry ice is very cost effective for keeping products frozen, there are many drawbacks to this PCM. Firstly, CO<sub>2</sub> is a greenhouse gas and is classified as Class 9 Dangerous Goods. Due to this fact, the quantity to be shipped can be limited by certain airlines and freight premiums may also apply.

Also, the cold energy release of dry ice is -80°C which means that it can be too cold for delicate products and can also cause damage to them. Furthermore, CO<sub>2</sub> can migrate into the primary packaging causing it to lose sterility.

Having discussed these problems with our customers, we developed a range of PCM's that can be used for shipping products at -15°C. The MediPhase®-15 PCMs are salt based, re-usable and are manufactured in-house by Laminar Medica according to ISO9001-2000 Quality Management System.



An exploded view of the MediPhase®-15 (46.8 Ltr) showing components

## Laminar Medica Limited

A CliniMed® Group Company

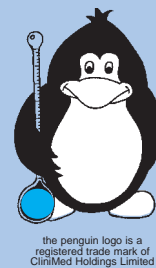
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The larger sizes of MediPhase®-15 systems are fitted with strong handles and have built-in pallet slots to facilitate handling.



ISO9001:2000  
 FM 28012