

canicool PCM cooling vest

available for humans and dogs



What is PCM?

Phase-change materials (PCMs) are substances that freeze heat energy and absorb and release melts at defined temperatures.

To understand why this makes sense, it is important to understand the difference between sensitive and latent heat. When a material is heated and no phase change occurs, its internal temperature rises. An example of this is a glass of water that heats up in the sun. When the sun shines on the glass, the energy of the water increases and the water molecules become more energetic, increasing the temperature of the water. This is called sensitive heat. Sensitive heat capacity is the



ability of a material to absorb heat energy (heating) as the temperature rises.

If a glass of ice cube is placed in the sunlight, the ice also begins to heat sensitively, but then begins to melt. If you measure the temperature of the ice as it melts, you will find that it remains at 0° Celsius (32 °F) until all the ice has melted. Because when the ice changes phase, the temperature remains constant until all the ice has melted. Latent heat capacity is the ability of a material to absorb or release heat energy when it melts or freezes without increasing the temperature.



PCM
 Phase Changing Material

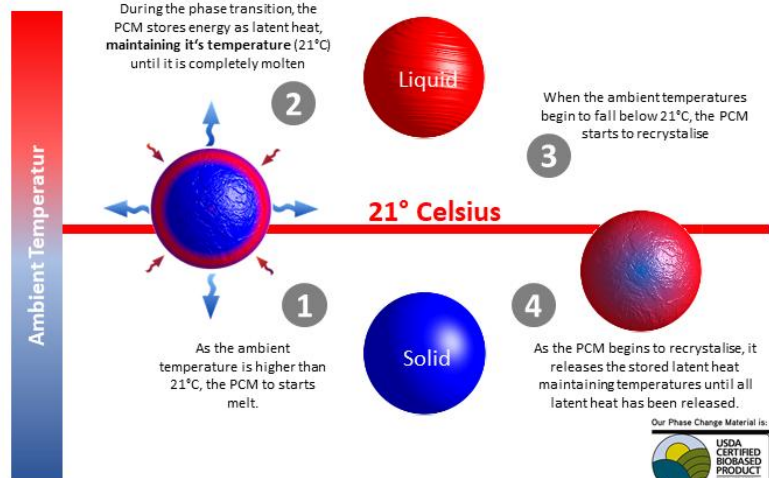


NEW: BIO PCM DOG VEST

What is PCM?

A **phase change material (PCM)** is a substance with a high heat of fusion which, melting and solidifying at a certain temperature, is capable of storing and releasing large amounts of energy.

How it works?



PCM vest for the army, industry etc.



PCM vest for sports



PCM vest for dogs



Perfect for service, police and army dogs; for all kind of dog sport activities like agility, jogging or for sleddogs (out-of-season training)

How to use

The canicool PAC® PCM cooling vests offer constant cooling and reliable protection against heat overload. They are designed for professional users who work in extremely hot environments and need professional cooling under their industrial protective equipment.

canicool -PAC® products are suitable for medical and sports applications where constant cooling is required. The cooling vests work reliably at extreme temperatures and all humidity levels.

Our canicool -PAC® industrial cooling vest is designed for an exact working temperature and is often worn under military combat suits, hazardous material protective suits, mascot costumes and other workwear. The canicool -PAC® sports cooling vest is mainly used by athletes for pre/post cooling.

These vests have 4 pockets on the inside (2 at the front and 2 at the back) in which our bio-based PCM cooling packs can be inserted.

We offer cooling packs for 4 different temperatures:

- 6,5°C
- 15°C
- 21°C
- 29°C

Fitting the canicool-PAC® PCM cooling packs into the vest:

After activating the PCM cooling packs, you can simply stow the cooling packs in the designated pockets. Close the bag with the Velcro strip.

Instructions Bio-PCM Cooling Pacs

Our reusable canicool-PAC® cooling technology products use bio-based phase-change material (PCM) and are manufactured from vegetable substances and are non-toxic, 100% biodegradable, flame-retardant, durable, reusable, 20% lighter than water and do not cause condensation.

Activate the canicool-PAC cooling packs:

The activation time of the PCM material depends on the canicool -PAC® output temperature and your cooling method:

- Ice water: approx. 20 minutes
- Freezer/freezer compartment: approx. 40 minutes
- Refrigerator: approx. 60 minutes

You can also activate the various PCM cooler pack types via the ambient temperature. Depending on the cooling pack type, the ambient temperature must be below the following values:

Ambient Temperature	canicool -PAC Temperature
Below 10°C	15°C PCM Pac
Below 19°C	21°C PCM Pac
Below 22°C	24°C PCM Pac
Below 26°C	29°C PCM Pac

Regardless of the cooling method, you can shorten the activation time by depositing the packs flat and individually instead of stacking them on top of each other. If you use the cool packs directly from a freezer, they may feel uncomfortably cold. We therefore recommend that you wait at least five minutes for the cooling packs to reach their working temperature of 15°C, 21°C, 24°C or 29°C, depending on the type of PCM ordered.

Once the PCM has reached this temperature, it will hold it for several hours. Cooling packs activated in a refrigerator or in cold water can be used directly.

Activated cool packs can be kept cool in a freezer cabinet or cool box and can be used for up to 12 hours. If you want to store PCM cool packs in cool box, you should activate them in a freezer.

Storage

You can store the cool packs in a freezer or freezer compartment or in a refrigerator so that they are always ready for use. However, if you need the space in the freezer or refrigerator elsewhere, you can also store the cool packs at room temperature. Put the cooler packs down one by one instead of stacking them. If you place the cooler packs in a freezer compartment, make sure they are dry so that they do not freeze over.

Components

Core: CrodaTherm™ biobased phase change material

Sealing: INUTEQ-SEAL™ polyether /polyester /polyurethane

Product features:

- ✓ 100% bio-based, vegetable material
- ✓ 100% biodegradable
- ✓ USDA- and REACH-certified
- ✓ Non-toxic, harmless and non-corrosive
- ✓ Long-term stability
- ✓ High latency heat storage capacity
- ✓ Sourced renewable materials
- ✓ Different working temperatures available

Country of origin

The Netherlands

For further information, please contact our international sales team by mail

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or

by phone

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