

191219

TEMPTECH®



Body



Equipment

Typically used for comfortable cooling of people and animals, as well as for temperature stabilization of electronics.

Typical temperature stabilization span

27°C ↔ 31°C

80°F ↔ 88°F

Product description

Temptech C28 is a salt hydrate based Phase Change Material that works by charging of energy at certain temperatures.

Temptech C28 is delivered in aluminium foil elements. Its main components are sodium sulphate, water and additives.

Physical data

| | |
|-----------------------------------|----------------------|
| Phase change temperature: Solid | 27°C / 80°F |
| Phase change temperature: Liquid | 31°C / 88°F |
| Latent heat of fusion (see curve) | 45 Wh/kg – 170 kJ/kg |
| Specific gravity | 1.4 kg/itre |
| Thermal conductivity: Solid | 0.98 W/m/°K |
| Thermal conductivity: Liquid | 0.72 W/m/°K |
| pH Value | Approx. 7-8 |

Estimated functionality time

Temptech C28 can be used/cycled as long as the primary packaging is kept uncompromised and it is handled in accordance with usage guidelines. The product will only work as declared for as long as the element is intact. The estimated functionality time can be affected by type of application and other external factors.

Usage guidelines

- Recommended storage temperature: +10°C to +25°C/+50°F to +77°F.
- Recommended min. and max. temperature of the product is -20°C to +30°C/-4°F to +86°F.
- Preparation before use depends on application conditions.
- Handle the Temptech C28 element with care and do not bend when solid.
- Do not use damaged element, as the product functionality will be compromised.
- The product should not be opened or tampered with.
- If the Temptech PCM comes in contact with your skin, immediately wash with soap and water.
- If the Temptech PCM comes in contact with your eyes, immediately flush with plenty of water.

The TEMPTECH® energy element has a 28 °C transition temperature. When the elements start to melt (temperatures above 28 °C/82°F) they absorb heat from your body. This process allows for a gentle cooling of the body allowing it to stabilize body temperature instead of shocking the body with extreme cold, as one does with an ice vest.



Transport



Room



Body



Equipment

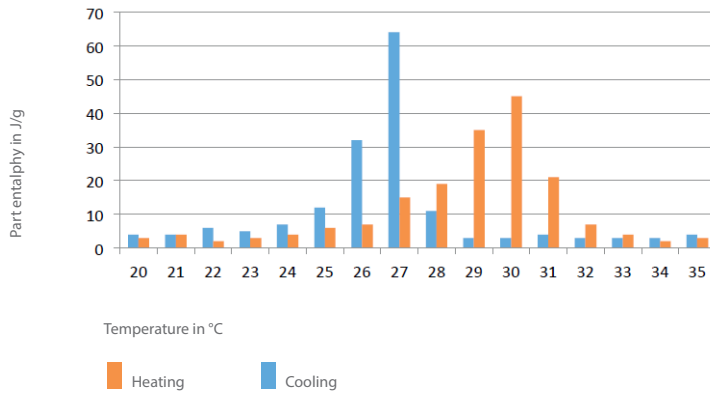
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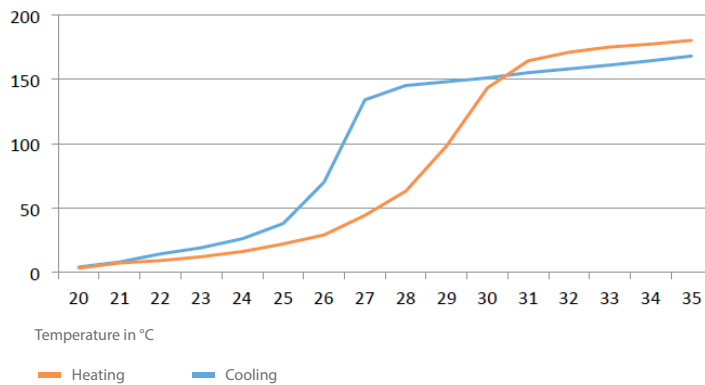
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Phase change properties

Part enthalpy



Enthalpy



Orange curve shows performance during melting (to be read from left to right).
Blue curve shows performance during crystallisation (to be read from right to left).

Waste Management

For disposal of the product please contact your federal, state or local waste management organisation. The product should be treated in accordance with requirements for EWC (=European Waste code) = 060314.



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