

SP-50

The creation of the latent heat material RUBITHERM® SP has led to a new and innovative class of low flammability PCM.

RUBITHERM® SP consists of a unique composition of inorganic components. RUBITHERM® SP is preferably used as macroencapsulated material.

With melting points below 0°C these materials are ideal for temperature controlled transport of frozen goods.

We look forward to discussing your particular questions, needs and interests with you.

Properties:

- stable performance throughout the phase change cycles
- high thermal storage capacity per volume
- limited supercooling (2-3K dependig on volume and cooling rate),
- low flammability, non toxic
- different melting temperatures between -50°C und 70°C are available
- encapsulation necessary, minimum volume: 50ml



The most important data:

Melting area

Congeeing area

Heat storage capacity ± 7,5%

Combination of sensible and latent heat in a temperatur range of -60 °C to-45 °C.

Specific heat capacity

Density solid

at -60°C

Density liquid

at 20 °C

Heat conductivity

Max. operation temperature

Corrosion

Notes:

Typical Values:

-50 bis -52 [°C]
main peak:⁵⁰

-52 bis -55 [°C]
main peak:⁵³

190 [kJ/kg]

54 [Wh/kg]*

2 [kJ/kg·K]*

~1,3 [kg/l]

~1,1 [kg/l]

0,6 [W/(m·K)]

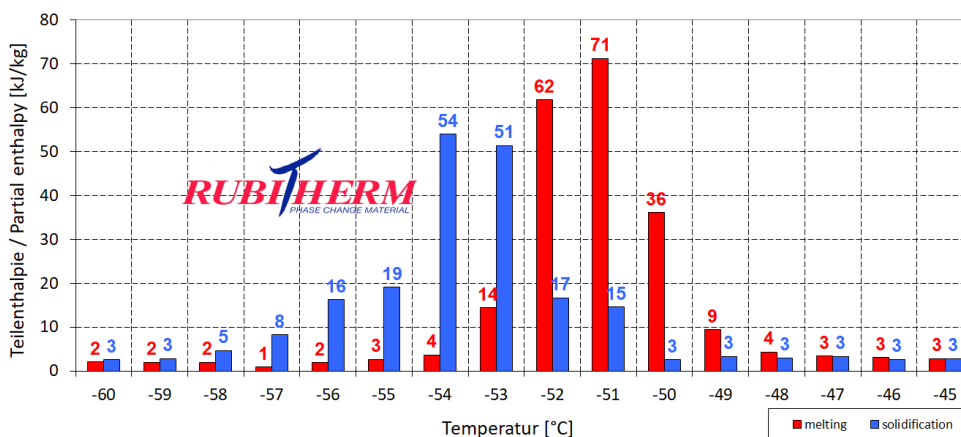
30 [°C]

corrosive effect on metals

-60°C recommended for freezing

Many SP-product are hygroscopic and may absorb moisture if stored improperly. This can result in a change of the physical properties given. Storing in closed containers mandatory.

Beispiel / example: SP-50 Teilenthalpie / Partial enthalpy distribution*



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*Measured with 3-layer-calorimeter.