

## 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**

**Congeealing 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:**

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

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]\***

**~1,1 [kg/l]**

**~1,3 [kg/l]**

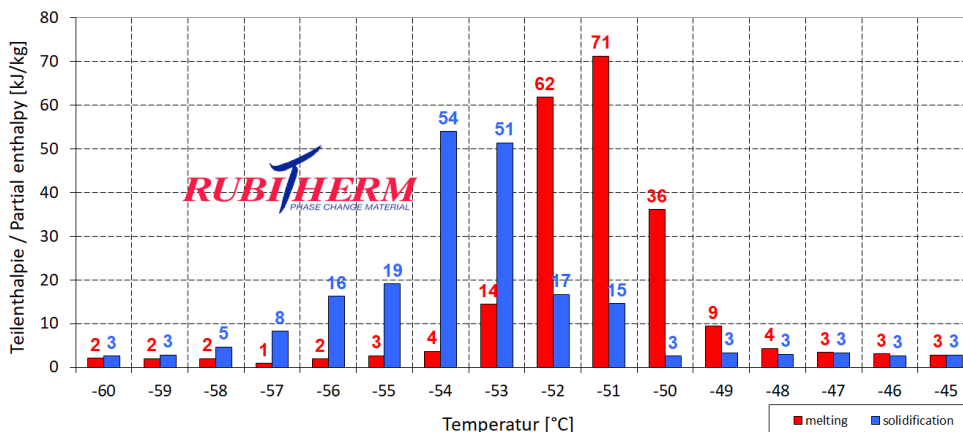
**0,6 [W/(m·K)]**

**30 [°C]**

corrosive effect on metals

-60°C recommended for freezing

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



\*Measured with 3-layer-calorimeter.

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