

## RT31

RUBITHERM® RT is a pure PCM, this heat storage material utilising the processes of phase change between solid and liquid (melting and congealing) to store and release large quantities of thermal energy at nearly constant temperature. The RUBITHERM® phase change materials (PCM's) provide a very effective means for storing heat and cold, even when limited volumes and low differences in operating temperature are applicable.



### Properties for RT-line:

- high thermal energy storage capacity
- heat storage and release take place at relatively constant temperatures
- no supercooling effect, chemically inert
- long life product, with stable performance through the phase change cycles
- melting temperature range between -9 °C and 100 °C available

### The most important data:

**Melting area**

Typical Values  
**27-33** [°C]

**Congeeing area**

main peak: 31 [°C]  
**33-27** [°C]  
main peak: 31

**Heat storage capacity ± 7,5%**

Combination of latent and sensible heat in a temperatur range of 23°C to 28 °C.

**165** [kJ/kg]\*

**Specific heat capacity**

**46** [Wh/kg]\*

**Density solid**

at 15°C

**2** [kJ/kg·K]

**Density liquid**

at 45°C

**0,88** [kg/l]

**Heat conductivity (both phases)**

**0,76** [kg/l]

**Volume expansion**

**0,2** [W/(m·K)]

**Flash point**

**12,5** [%]

**Max. operation temperature**

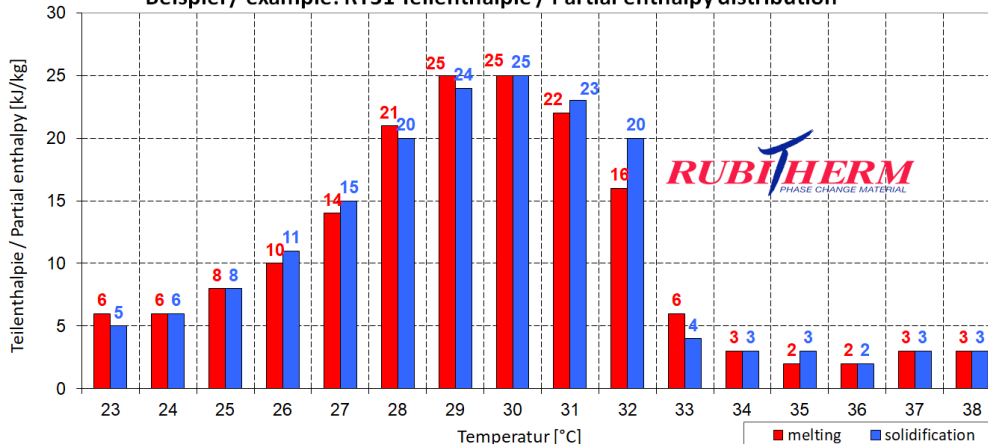
**157** [°C]

**50** [°C]



GHS08

Beispiel / example: RT31 Teilenthalpie / Partial enthalpy distribution



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\*Measured with 3-layer-calorimeter.