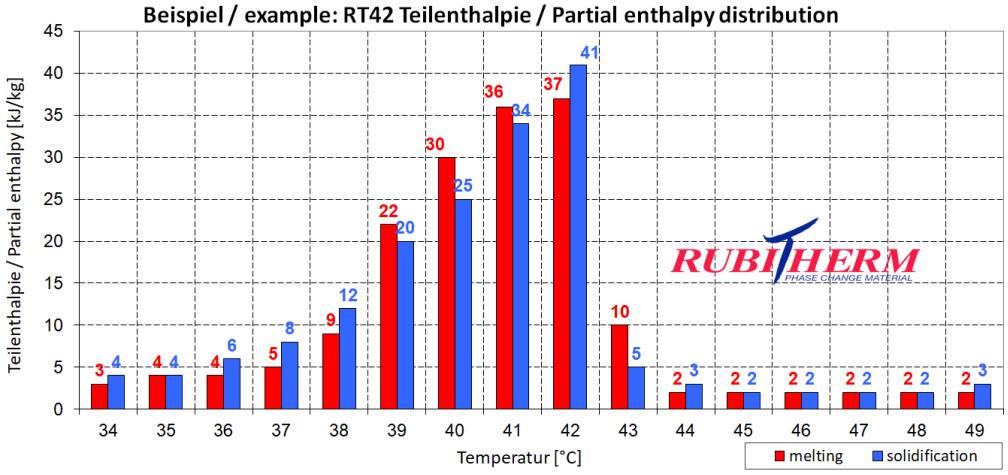
Data sheet

RT42

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 125 °C available**

The most important data:	Typical Values	
Melting area	**38-43** main peak: 41	[°C]
Congealing area	**43-37** main peak: 42	[°C]
Heat storage capacity ± 7,5% Combination of latent and sensible heat in a temperatur range of 35 °C to 50 °C.	**165** **48**	[kJ/kg]* [Wh/kg]*
Specific heat capacity	**2**	[kJ/kg·K]
Density solid at 15°C	**0,83**	[kg/l]
Density liquid at 80 °C	**0,76**	[kg/l]
Heat conductivity (both phases)	**0,2**	[W/(m·K)]
Volume expansion	**12,5**	[%]
Flash point	**186**	[°C]
Max. operation temperature	**72**	[°C]



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Version: 21.01.2026

**Measured with 3-layer-calorimeter.*