

Product  
Information



# ***RUBITHERM***® RT

## Phase Change Material based on n-Paraffins and Waxes

A new generation of ecological heat storage materials 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 operating temperature differences are applicable.

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

### **Properties:**

- High thermal energy storage capacity
- Heat storage and release take place at relatively constant temperatures
- No supercooling effect
- Long life product, with stable performance through the phase change cycles
- Ecologically harmless and non-toxic
- chemically inert
- Melting temperature range between approx. -4 °C and 100 °C
- **viscosity- and density increasing through additives, this impeded deliquesce at melting**

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## Data Sheet

# **RUBITHERM® RT 31**



### Typical Values

Melting area	°C	27 - 31 typical being: 29°C
Congealing area	°C	31 - 27 typical being: 29°C
Heat storage capacity temperature range 20°C to 35°C	J/kg	169
Density solid at 15°C	kg/l	0.88
Density liquid at 45°C	kg/l	0.76
Volume expansion In phase change range	%	16
Heat conductivity	W/(m*K)	0.2
Kin. Viscosity at 50°C	mm <sup>2</sup> /s	28.57
Flash point (PCM)	°C	174
corrosion		chemically inert with respect to most materials
water hazard		Water hazard class ( WGK ) 1