

Product  
Information



# ***RUBITHERM***® GR

## Latent Heat Granulate based on Paraffins

*RUBITHERM* GR is a heat storage granulate in which a phase change material (PCM) is contained within a secondary supporting structure, in this case a natural porous mineral particle. Used in thermal energy storage applications, the bound PCM melts and congeals, thus storing and releasing the latent heat associated with the phase change process.

In *RUBITHERM*® GR our patented mechanism ensures that the PCM, when in the liquid form, does not leak out of the granulate. The result is that the bound PCM is always a solid in its macroscopic form.

Advantageous is that for many applications, large quantities of thermal energy can be stored and released at a relatively constant temperature, 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 heat storage capacity
- Heat storage and release take place at relatively constant temperatures
- Bound PCM's exhibit little volume change during phase change
- operate without fluid materials
- Long life product, cycles rugged
- Ecologically harmless and non-toxic
- easy handling
- Melting temperatures range between  $-3\text{ }^{\circ}\text{C}$  and  $100\text{ }^{\circ}\text{C}$ .
- Various granulate sizes are possible

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## Data Sheet

# **RUBITHERM® GR 50** (0.2 – 0.6)



### Typical Values

#### Components

SiO<sub>2</sub>, Paraffin

#### Bulk density

kg/l 0.849

#### Melting area (PCM)

°C 45 - 51

Typical being: 49 °C

#### Heat storage capacity

kJ/kg 55

Temperature range 37 °C - 52 °C

#### Volume expansion

% none

#### Specific heat capacity

kJ/(kg\*K) 1.5

#### Heat conductivity

W/(m\*K) 0.2

#### Flash point (PCM)

°C approx. 190

#### Operating Temperature

°C max. 70

#### Corrosion

chemical inert towards most materials

#### Water hazard

No water endangering substance according to Annex I VwVws (KBwS classification, identification no. 268)