

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 82

(1 – 3 mm) before GR 80



Typical Values

Components

SiO₂, Paraffin

Bulk density

kg/l 0.8

Melting area (PCM)

°C 77-84
Typical being: 82°C

Heat storage capacity

kJ/kg 58

Temperature range °C - °C

Volume expansion

% none

Specific heat capacity

kJ/(kg*K) 1.5

Heat conductivity

W/(m*K) 0.2

Flash point (PCM)

°C approx. 270

Operating Temperature

°C max. 110

Corrosion

chemical inert towards most materials

Water hazard

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