DantoPlug Thermal

Description
DantoPlug Thermal is used for thermal optimisation of geothermal energy wells. These bentonite based pellets provide a complete and permanent sealing of the borehole and set a new industry standard for swelling capacity and swelling pressure of thermal conductive products for this use. This ensures an elsewhere unseen ability to bond to the surrounding ground formation and seal off the complete borehole in a permanent manner.

Application
After the heat collecting pipe system has been placed and filled up with water and temporarily closed at the ends with valves, the pellets are poored or pumped into the borehole. If the borehole is dry and without groundwater, it is hereafter filled up with water in order to enable the pellets to swell up. After the full swelling capacity has been reached (after 24 hrs.), a permanent seal of the borehole is achieved. The valves at the ends of the pipe system can now be removed.
In order to ensure optimal conductivity in the system, it is important to fill up the entire bore string with DantoPlug Thermal. This should be done in a slow and steady manner. It is advisable to make control measurements during the filling process in order to ensure a full and homogeneous filling of the borehole.

You need 1100 kg pellets to fill up a volume of 1 m^3.
1000 kg of pellets will fill up a volume of 910 liters.
25 kg of pellets will fill up a volume of 22,75 liters.

Specification

Description	DantoPlug Thermal
Dimension (mm)	Ø6 x 11
Density, as delivered (kg/m^3)	1100
Sinking speed in water (m/min)	20
Start of swelling (min)	30
Swelling after 24 hours (%)	> 350
Swelling pressure (kN/m^2)	110
Permeability (m/sec)	E10^{-11}
Conductivity after 24 hrs. (W/mK)	1,9

Packaging
25 kg sacks, or 1000kg or 500 kg big bag.

Distributor:

BOODE waterwell systems

www.boode.com