

Construction Technologies
Civil Engineering, Drilling & Tunnelling

TERMOPLAST PLUS®

Termoplast PLUS ® is a premixed specially designed for the filling of geothermal wells. Termoplast PLUS ® is a special blend of blast furnace cement binders, bentonite high value plastic and selected sands.

Characteristics of the components

Binding components:

- *the exclusive cementitious binding components* used allow for excellent workability in the first four hours, a high sulphate resistance (DIN 1164/ sec. 10) and finally a strong resistance to freezing without the use of additives, until -15 ° C
- *Bentonite*: high performance bentonites specially selected for use in geothermal wells allow the achievement of the required performance with a limited quantity, still maintaining the necessary characteristics of swelling, as required by many of the requirements of local legislation in Germany.
- *Selected sands* with high fineness (<0.25 mm) and high thermal conductivity allow a good fluidity during pumping operations of the cement mixture.

Properties and Benefits

- Absence of cavities: the well is completely sealed;
- Fast hardening: high thixotropy of the product ensures the filling of any cavity;
- Plasticity: it allows the structural safety of the GSHP (Ground System Heat Pump) in the presence of natural settling of the subsoil;

- High conductivity and thermal efficiency over time: high thermal conductivity (up to 2.3 W / mK).
- Ready to use: fast, error free and inventories of unused materials;
- Environment friendly
- Free of chromates (EU guideline 2003/53/EG).

EXAMPLES OF FORMULATIONS

<p style="text-align: center;">Thermal Conductivity 2.0 W/mK*</p> <p style="text-align: center;">Composition of mixture</p> <p>Soft water 780 l + Termoplast PLUS 875 Kg Ratio powder / water per m³ 1,1 Number of bags per m³ of mud 35 ca Mixture that can be produced with 25 kg bag →28-30 l</p>
<p style="text-align: center;">Thermal Conductivity 1.6 W/mK*</p> <p style="text-align: center;">Composition of mixture</p> <p>Soft water 705 l - Termoplast PLUS 705 Kg Ratio powder / water per m³ 1,0 Number of bags per m³ of mud 28 ca Mixture that can be produced with a 25 kg bag →34-36 l</p>
<p style="text-align: center;">Thermal Conductivity 1,3 W/mK*</p> <p style="text-align: center;">Composition of mixture</p> <p>Soft water 720 l - Termoplast PLUS 585 Kg Ratio powder / water per m³ 0,8 Number of bags per m³ of mud 23 ca Mixture that can be produced with a 25 kg bag →42-44 l</p>

(*) determination method UNI EN 12664

Packaging

- 25 Kg paper/valve bags

Storage and Disposal

Keep the product in a dry place and closed in original packing

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