

# ShifuGrout T508 Series - Thermal Grout

A Heat-conducting Material for Underground Power Transmission





## **ShifuGrout T508 Series**

<u>ShifuGrout T508 Series</u> is used to transmit heat from underground electrical cables to surrounding soil or rock, especially for HDD projects.

The low thermal resistance of the <u>ShifuGrout T508 Series</u> ensures excellent heat dissipation, therefore reduces capacity loss in the cable line and the power capability of the cable route is thus permanently increased.

#### **DESCRIPTION**

<u>ShifuGrout T508 Series</u> is a heat-conducting special construction material developed as a backfilling material for underground power transmission. As its excellent free-flow properties, <u>ShifuGrout T508 Series</u> is outstandingly well-suited for backfilling the residual annular space between the cable and the tube, especially for Horizontal Directional Drilling (HDD) projects.

#### **FEATURES AND BENEFITS**

- Excellent free-flowing properties
- Able to pump for long-distance and large height
- Improved heat dissipation for cables
- Increased power capacity
- Reduction of conductor cross-section area
- Resistance to setting to enable cables to be replaced and maintained in the future

#### **CONSUMPTION**

- Water demand: Approx. 80%
- 1000 kg powder will yield approximately 1200 litre of mixed grout

#### **PACKAGING**

<u>ShifuGrout T508 Series</u> is packed in a watertight bulk bag, 1te/bag.

#### **STORAGE**

- Store under a dry condition in closed silos.
- Shelf life under these conditions is 6 months.



## **ShifuGrout T508 Series**

#### **PERFORMANCE**

| T508-8 Technical Data |                               | Unit    | Values |
|-----------------------|-------------------------------|---------|--------|
| Thermal Resistance    | Measured with the ISOMET 2014 | (m·K)/W | ≤ 0.8  |
| Thermal Conductivity  | Measured with the ISOMET 2014 | W/(m·K) | ≥ 1.25 |

| T508-7 Technical Data |                               | Unit    | Values |
|-----------------------|-------------------------------|---------|--------|
| Thermal Resistance    | Measured with the ISOMET 2014 | (m·K)/W | ≤ 0.7  |
| Thermal Conductivity  | Measured with the ISOMET 2014 | W/(m·K) | ≥ 1.43 |

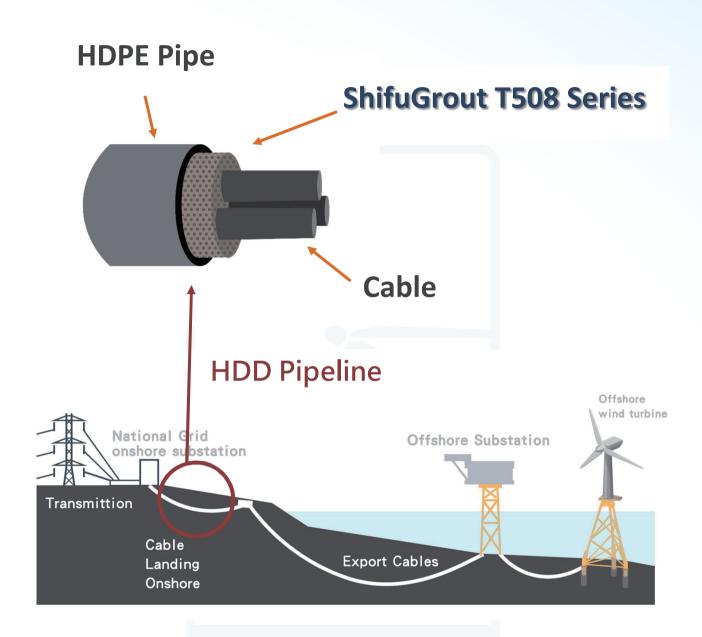
| T508-5 Technical Data |                               | Unit    | Values |
|-----------------------|-------------------------------|---------|--------|
| Thermal Resistance    | Measured with the ISOMET 2014 | (m·K)/W | ≤ 0.5  |
| Thermal Conductivity  | Measured with the ISOMET 2014 | W/(m·K) | ≥ 2.0  |

| T508-4 Technical Data |  | Unit                          | Values  |       |
|-----------------------|--|-------------------------------|---------|-------|
| Thermal Resistance    |  | Measured with the ISOMET 2014 | (m·K)/W | ≤ 0.4 |
| Thermal Conductivity  |  | Measured with the ISOMET 2014 | W/(m·K) | ≥ 2.5 |

• Original ShifuGrout T508 Series thermal grout material is a **non-hardening suspension**. We could customize the material base on clients' requests as well: The material with compressive strength or different requests of thermal resistance/ conductivity.







### **Compare with Other Materials**

| Other Material | Thermal Resistance (m·K)/W | Thermal Conductivity W/(m·K) |
|----------------|----------------------------|------------------------------|
| Concrete       | 1                          | 1                            |
| Water          | 1.7                        | 0.6                          |
| Air            | 45                         | 0.02                         |

