



PRE-INSULATED PIPES FOR GEOTHERMAL SYSTEMS

INFLEX[®] HD THERMAL

Inflex HD THERMAL for ground heat pump systems

Preinsulated pipes Inflex Thermal are specifically designed for **ground heat pump systems (GHPS)**, to transport liquid from heat exchanger to heat pump (Inflex Thermal).

The system consists of an HDPE pipe insulated with flexible foam and enclosed in a corrugated pipe for outside protection. A multilayer layer of soft foam EPE provides excellent thermal insulation in a wide temperature range. Insulation's closed-cell structure prevents water absorption and water vapour permeability, and is resistant to mechanical deformation.

Pipes are highly corrosion-resistant, pressure and temperature resistant (up to 40°C). These pipe has high mechanical strength (500 N), high-impact resistance and flexibility which makes them easy to install. Pipes are also recommended for other cold water industrial applications.

Pipes are available in 6 meter straight lengths and in coils of 25, 50 and 100 meters.



Preinsulated pipes exclusively distributed by

MuoviTech

INFLEX THERMAL

Carrier pipe diameter (mm)	Pipe symbol	Insulation thickness (mm)	Outside diameter (mm)	Heat emission W/m*	Minimum bending radius (m)**
32	Thermal 32x63	10,5	63	6,83	0,288
40	Thermal 40x63	6,5	63	10,53	0,36
45	Thermal 45x75	8	75	9,15	0,405
50	Thermal 50x75	6	75	11,92	0,39
50	Thermal 50x90	12	90	8,18	0,45
63	Thermal 63x110	15	110	8,68	0,567
75	Thermal 75x160	30	160	8,05	0,675
90	Thermal 90x160	24	160	8,84	0,81
90	Thermal 90x200	42	200	5,91	0,85
110	Thermal 110x200	32	200	8,13	0,99
125	Thermal 125x200	25	200	10,68	1,125

*Average heat emission in W/m:

- T medium: 20°C
- T environmental: 5°C
- T Δ: 15K

**Reported values may differ from the actual depending on the type of carrier pipe

Carrier pipe

Material: **HDPE 100**

Type: **SDR17 PN10 / SDR13,6 PN12,5 / SDR11 PN16 / SDR9 PN20**

According to **PN-EN12201-2**

Applications: **ground heat pump systems (GHPS)**

Working temperature: **from -10 °C to +20 °C**

When using permanent operating temperature higher than +20 °C to +40 °C, pressure reduction factor is:

Temperature	Pressure reduction factor
+20 °C	1,0
+30 °C	0,87
+40 °C	0,74

For temperatures between these values is permitted interpolation.

Insulation

Material: **Extended polyethylene closed cell foam (EPE)**

Produced without (H)CFC's

Density: **30kg/m3 +/- 10%**

Water vapour diffusion resistance: **>3000 μ**

Water absorption: **B - 1%**

Chemical resistance: **excellent**

Flammability (reaction to fire): **Class F / E / D**

Exterior protection pipe

Type: **RIW**

Material: **polyethylene mod. (HDPE-mod.)**

Water vapour permeability: **minimum**

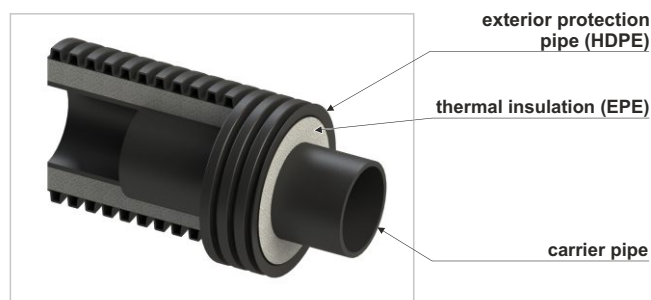
Mechanical strength (PN-EN 61386-24): **500N**

Chemical resistance: **excellent**

UV resistance: **2 years**

Colour: **black**

Pipe section



The manufacturer reserve the right to change the parameters due to the improvement and development of the products.