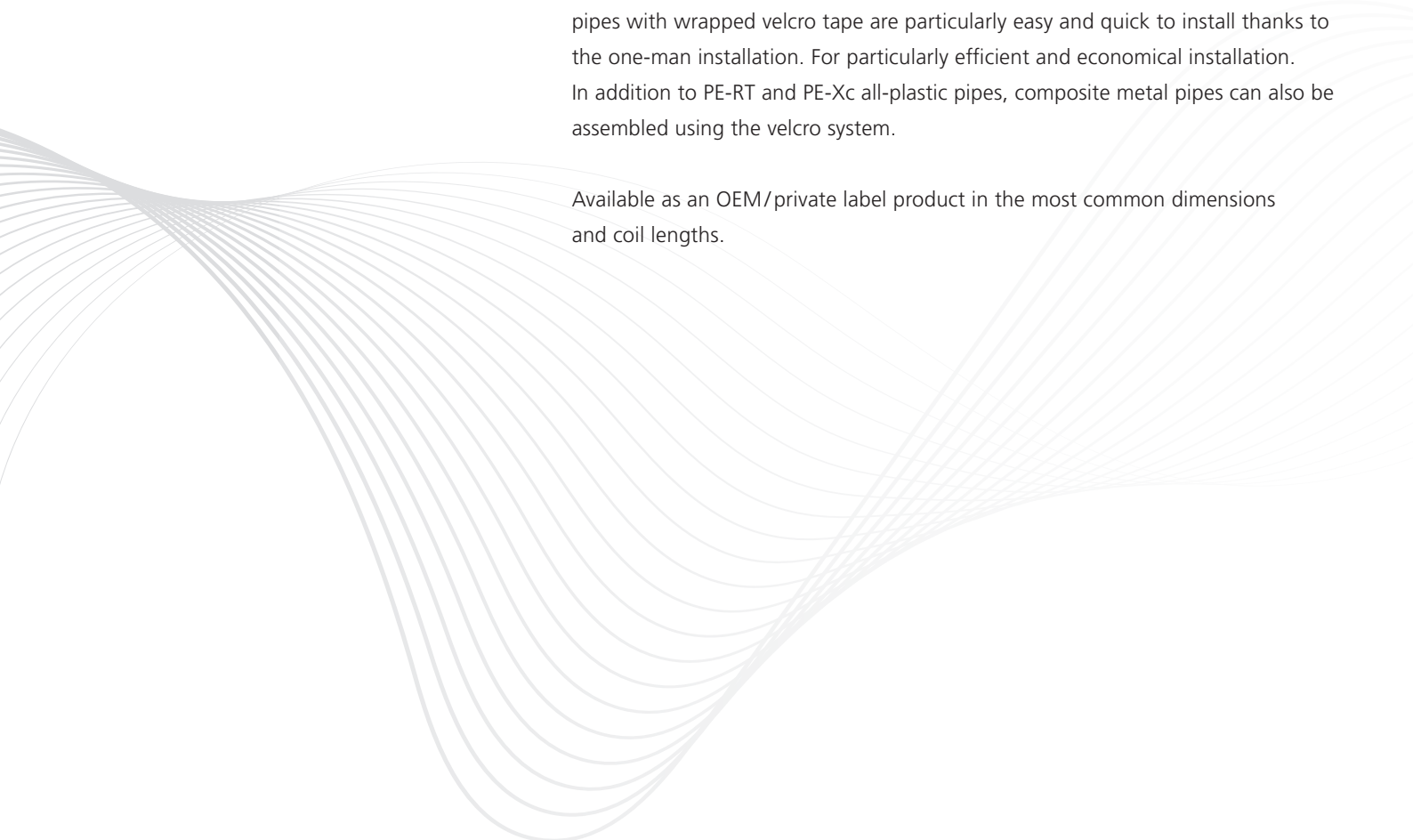# HAKAklett

The underfloor heating pipe with perfect adhesion. Our five-layer solid plastic pipes with wrapped velcro tape are particularly easy and quick to install thanks to the one-man installation. For particularly efficient and economical installation. In addition to PE-RT and PE-Xc all-plastic pipes, composite metal pipes can also be assembled using the velcro system.

Available as an OEM/private label product in the most common dimensions and coil lengths.
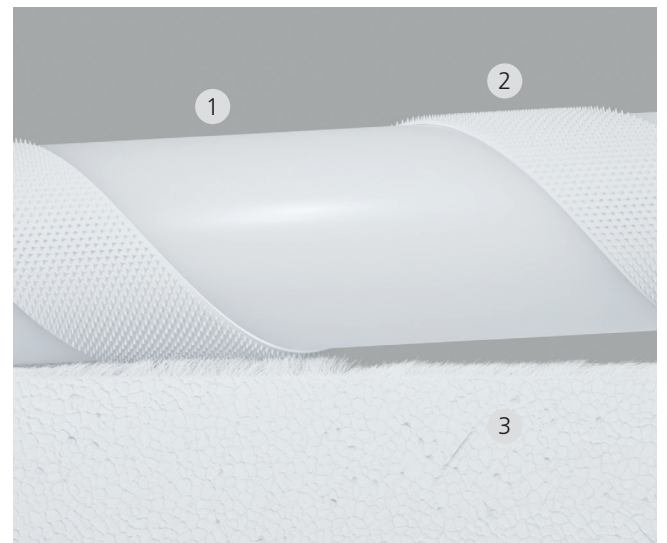
APPLICATION AREAS

- surface heating
- surface cooling

ADVANTAGES

- installation: simple-fast-economical
- one-man-installation possible without tools
- secure hold thanks to proven velcro technologie
- no damage to the insulation layer
- proven HakaGerodur pipe quality

FACTS

1. HAKAklett available as:
   - 5-layer-all-plastic pipe (MPP) PE-RT I or II
   - 5-layer-all-plastic pipe (MPP) PE-Xc
   - Metal-composite-pipe (MMP)

2. Velcro tape
   - gang height: 65 mm +/- 5 mm
   - velcro width: 13 mm
   - velcro thickness: 0.65 mm
   - velcro colour: white

3. Carrier material
   - velcro panel or velcro tile supplied by customert

PROPERTIES (E.G. MPP PE-RT I)

Outer pipe diameter [mm]	14.0	16.0	17.0
Pipe wall thickness [mm]	2.0	2.0	2.0
Inner pipe diameter [mm]	10.0	12.0	13.0
Smallest bending radius [mm] without bending device	70	80	85
Smallest bending radius [mm] with bending device	28	32	34
Weight per meter [g/m]	75	87	94
Water content [liter/m]	0.079	0.113	0.133
Maximum operating temperature, over 50 years [°C]	70	70	70
Maximum operating temperature, max. 1 year [°C]	90	90	90
Emercency operating temperature, max. 100 hrs [°C]	100	100	100
Maximum operating pressure, appl. classes 4/5 [bar]	8	8	6

Version 14.11.23 / Errors and changes reserved.
You can find further product properties on our Website. Other dimensions on request.

Approvals / Certifications
Our portfolio is constantly being extended.
You can find the current status on our website.