



UNIVERSA 5 layer-pipe

UNIVERSA 5 layer-pipe is a „high-security-pipe“ consisting of:

- a Polyethylen basic-pipe with raised temperature resistance
- adhesive
- EVOH oxygen barrier
- adhesive
- Polyethylen outside- layers a protection against damaging of oxygen barrier.

Universa PE-RT pipe is resistant against high temperature (up to 70°C), oxygen tightness (DIN 4726) and high flexibility.

The red PE-RT- 5 layer-pipe is specialised for using floor- and wall heating system, concrete core cooling, free panel heating, industrial panel heating.

The blue PE-RT- 5 layer-pipe will be installed for ceiling cooling systems and for a UNIVERSA energy renovation system.

PE-RT 5 layer pipe

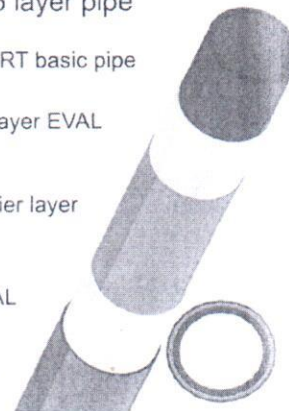
PE-RT basic pipe

adhesive layer EVAL

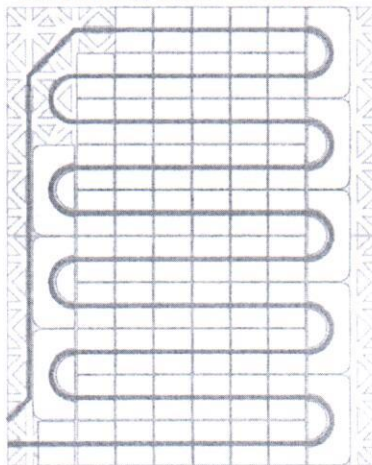
EVHO oxygen barrier layer

adhesive layer EVAL

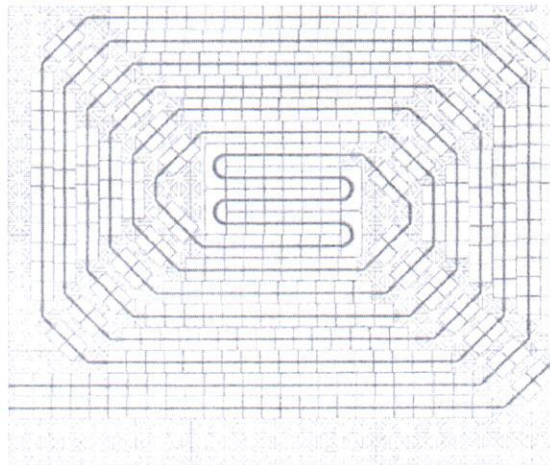
PE-RT outside layer



a meandering pattern installation



a spiral installation





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UNIVERSA®

Member of **HEIZ Group**

SYSTEMTECHNIK

technical Data	14x2,0	16x2,0	17x2,0	18x2,0	20x2,0
material	PE-RT Polyethylen temp.stabilized	PE-RT Polyethylen temp.stabilized	PE-RT Polyethylen temp.stabilized	PE-RT Polyethylen temp.stabilized	PE-RT Polyethylen temp.stabilized
ordering designation	PE-RT 14x2	PE-RT 16x2	PE-RT 17x2	PE-RT 18x2	PE-RT 20x2
type	5-layer plastic pipe	5-layer plastic pipe	5-layer plastic pipe	5-layer plastic pipe	5-layer plastic pipe
outer diameter [mm]	14	16	17	18	20
wall thickness [mm]	2,0	2,0	2,0	2,0	2,0
inner diameter [mm]	10	12	13	14	16
pipe weight [g/lfm]	80	90	100	104	120
weight with water [g/lfm]	158	203	233	258	321
internal volume [l/m]	0,078	0,113	0,133	0,154	0,201
expansion coefficient [mm/mK]	0,19	0,19	0,19	0,19	0,19
thermal conductivity [W/mK] average	0,35	0,35	0,35	0,35	0,35
oxygen diffusion [mg/l/d]	<0,1	<0,1	<0,1	<0,1	<0,1
max. operating temp. [°C]	70	70	70	70	70
max. operating pressure [bar] at 70°C	6	6	6	6	6
malfunction temp.	90	90	90	90	90
density [g/cm ³]	0,933	0,933	0,933	0,933	0,933
bending radius *	5 x od	5 x od	5 x od	5 x od	5 x od
colour	nature / colour	nature / colour	nature / colour	nature / colour	nature / colour
delivery length [m]	100 to 600	100 to 600	100 to 600	100 to 600	100 to 400
layer- structure	PE-RT Adhesive oxygen barrier Adhesive PE-RT	PE-RT Adhesive oxygen barrier Adhesive PE-RT	PE-RT Adhesive oxygen barrier Adhesive PE-RT	PE-RT Adhesive oxygen barrier Adhesive PE-RT	PE-RT Adhesive oxygen barrier Adhesive PE-RT
application	Panel heating	Panel heating	Panel heating	Panel heating	Panel heating

* od = outside diameter