

CALPEX District heating pipe system

Material supplied

CALPEX district heating pipe system for operating temperatures up to a maximum of 95°C (fluctuating), comprising

- CALPEX district heating
- CALPEX moulded fittings (house entry bends)
- CALPEX accessories (connecting pieces, T-pieces, wall sealing ring, etc.)

Calpex district heating pipes are supplied to the site in the desired length in a single piece in coils. The pipes can be laid in earth largely without connecting points.

It is designed for use in small and medium-sized district and local heating networks as well as in industry and agriculture, drinking water supply, sewage systems, refrigerating plants and swimming pools.

Design/Structure

Carrier pipe

Materials:

High-density polyethylene (PE-HD)
PE-Xa cross-linked peroxide

Oxygen diffusion barrier:

Organic (EVOH),
heat stabilising

Standard:

DIN 16892/16893 and EN 12318-2
Serie 3.2, DVGW working sheet W 544

Pipe series according to
DIN 16893:

Serie 5: SDR 11 **heating** with
EVOH barrier

Serie 3.2: SDR 7.4 **sanitary** without
EVOH barrier

Density:

932-935 kg/m³, ISO 1183

Thermal conductivity:

0.38 W/mK, in Accordance to ASTM C 1113

Protective sheath

Material:

linear polyethylene, low density (LLD-PE)

Seamless extruded

Density:

918-922 kg/m³, ISO 1183

Thermal conductivity:

0.33 W/mK, DIN 52612

Insulation

Heating

CFC-free, cyclopentane-blown polyurethane foam (PUR)

Density:

> 50 kg/m³, EN 253

Thermal conductivity:

at 50°C ≤ 0.0216 W/mK, EN 253 and ISO 8497

Water absorption:

after 24 hrs. ≤ 10 %, EN 15632-1

Sanitary

CFC-free, 100% CO₂-blown polyurethane foam (PUR)

Density:

> 50 kg/m³, EN 253

Thermal conductivity:

at 50°C ≤ 0.0234 W/mK, EN 253 and ISO 8497

Water absorption:

after 24 hrs. ≤ 10 %, EN 15632-1

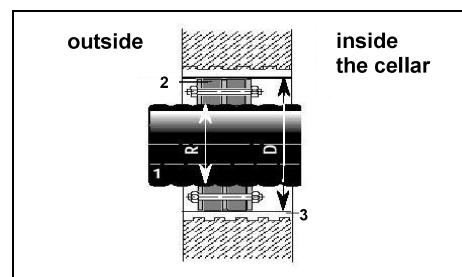
Components / accessory range

- House entry bend 90°, 1,6 x 1,1 m
- Forked pipe with PE-Xa or steel carrier pipe
- PEX screw connection with male thread or weld-on end (connection, coupling, T-piece)
- PEX press connection with sliding sleeve with male thread or weld-on end (connection, coupling, T-piece)
- Socket connection (SMPE connecting socket)
- Shrink-end cap
- Sealing ring
- GFK half shells for the isolation of T-pieces
- Distribution duct

Covering Material (sand)

Round-edged washed sand, max. grain size 8 mm

Doyma wall duct



1 CALPEX district heating pipe system

2 sealing set C40* double sealing
Width 2 x 40 mm, short hardness 35

3 pipe liners made of fibre cement
or coated core drill hole

Suitability

- * against pressurised water

Sealing capacity

- impermeable to gas

Load-bearing capacity

- axial movements

R Sleeve pipe diameter PE ø mm	D Pipe liner Core drill hole Ø mm
78	150
93	150
113	200
128	200
143	200
163	250
183	250
202	300
225	300
250	350

Trench profile / trench dimensions

UNO, alle Maße cm			
Outer pipe Ø D mm	Width B [cm]	Depth T [cm]	Min. bending radius
78	45	80	0.7
93	50	80	0.8
113	55	85	0.9
128	55	85	1.0
143	60	85	1.1
163	65	90	1.2
183	70	95	1.4
202	75	95	1.4
250	80	100	-

DUO, alle Maße cm			
Outer pipe Ø D mm	Width B [cm]	Depth T [cm]	Min. bending radius
93	30	80	0.8
113	30	85	0.9
128	35	85	1.0
143	35	85	1.1
163	35	90	1.2
183	38	95	1.4
202	40	95	1.4