



PP-Terra Low noise

Push-fit Polypropylene Pipes and fittings
21dB (A)  Fraunhofer



PP-Terra Polypropylene Pipes and Fittings Properties

MATERIAL

Polypropylene (PP)

DIN EN 1451 / DIN 4109 / DIN 4102

SIZES

32 - 200 MM

TEST STANDARDS

EN 14366, DIN 4109, VDI 4100, EN 1451

ACOUSTICAL PERFORMANCE

21 dB (A) at 4l/s Flow Rate - Fraunhofer (Germany)



CHEMICAL RESISTANCE

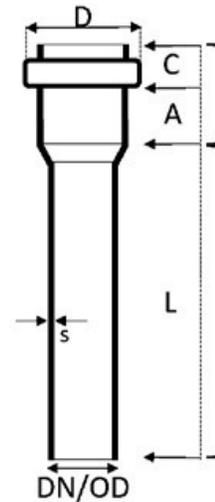
PH02 - PH 12

FIRE RATING

Class B2, DIN 4102

INSTALLATION

Push-fit method



PP Terra is a Push-fit flame retardant waste & soil system, manufactured from durable Polypropylene material which can withstand domestic hot water discharge and cope with the majority of chemicals and detergents, manufactured to stringent quality control standards (BS EN ISO 9001-UK) to meet the requirements of the standard UNI EN 1451 and conforms international fire regulations.

PP Terra is Perfectly Smooth Solid wall and structured wall pipes, shiny and free of irregularities that would compromise the functional aspect, and contains no heavy metals or other additives harmful to the environment and it can be recycled for pipe or for energy recovery through incineration.

System Benefits:

- Flame retardant product
- No welding, gluing or special tools required
- Low pipe weight per meter increased design freedom
- Superior impact resistance
- Superior chemical resistance (PH₂ - PH₁₂)
- Superior temperature resistance (up to 90°C)
- Durable and excellent Corrosion Resistance
- Lower noise level than the traditional (PVC) system



High stroke resistance due to the flexible molecular structure of its raw material.



Up to 90° C continuous operating temperature which makes the PP Terra the ideal product for the hot water applications.



Superior chemical resistance which makes the PP Terra the ideal product for the chemical waste and industrial applications.



Push fit joints simple and easy installation grants the safety of the connections and makes the maintenance of the system peace of mind.



Toxicity, safety & environmental issues: Polypropylene is one of the most neutral plastics, containing only two elements: carbon (C) and hydrogen (H).

PVC by comparison contains about 30% by weight, of the element Chlorine (Cl) in its basic structure. It is well documented that chlorine, like all halogens, is a dangerous substance in the environment. When PVC is incinerated or present in accidental fires it produces toxic by products such as dioxins, chlorocarbons and hydrochloric acid. Complete combustion of PP, on the other hand, will generate only carbon dioxide and water.

PVC is intrinsically heat unstable and can even decompose during processing. PP is much more tolerant to heat; even under extreme conditions it will only decompose to lower molecular weight paraffin's, which are elementally compatible with the base material.

Not only is PVC inherently dangerous in its basic form, but it also needs a large amount of lead to stabilize it. Lead is highly toxic both during the life cycle of a product and after its disposal. This is why there is neither lead nor other heavy metals used in the manufacture of PP pipes. Polypropylene pipes are manufactured from propylene monomer, a relatively safe gas. Polypropylene is 100% recyclable. PVC is not recyclable to the same extent, firstly because of its intrinsic chemical composition and also because of the additives it contains.

In summary, there is clear evidence that PP is a safer, non-toxic and environmentally friendly alternative to the technologies that gave us plastics such as PVC.

Reliability, Flexibility, Compatibility and Quality:

- PP TERRA offers an Improved stiffness/Impact property balance.
- Perfectly Smooth Solid wall and structured wall pipes, shiny and free of irregularities that would compromise the functional aspect.
- Wide Range of pipes, fittings and ancillary drainage components, aesthetically pleasing appearance and clearing identified by its distinctive UV Stabilized Gray colour.
- Conforms International Fire Regulations.
- Manufactured to stringent quality control standards (BS EN ISO 9001-UK) to meet the requirements of the standard UNI EN 1451.
- PP TERRA contains no heavy metals or other additives harmful to the environment and it can be recycled for pipe or for energy recovery through incineration.

MUFFED PIPE



Diameter (mm)	Dimension (mm)
32	3000
32	5800
40	3000
40	5800
50	3000
50	5800
75	3000
75	5800
110	3000
110	5800
160	3000
160	5800
200	3000



Y BRANCH

Diameter (mm)	Dimension (mm)
32 x 32	110 x 75
40 x 40	110 x 110
50 x 50	160 x 110
75 x 50	160 x 160
75 x 75	200 x 160
110 x 50	200 x 200



FLOOR TRAP

Dimension (mm)
110 x 75 x 50 x 50



REDUCER

Dimension (mm)
40 x 32
50 x 40
75 x 50
110 x 50
110 x 75
160 x 110
200 x 160



SOCKET

Dimension (mm)
32
50
75
110
160
200



87° TEE

Dimension (mm)
50 x 50
75 x 50
75 x 75
110 x 50
110 x 75
110 x 110
160 x 160
200 x 200



45° - 87° ELBOW

Dimension (mm)	Dimension (mm)
32 x 45°	75 x 87°
32 x 87°	110 x 45°
40 x 45°	110 x 87°
40 x 87°	160 x 45°
50 x 45°	160 x 87°
50 x 87°	200 x 45°
75 x 45°	200 x 87°



DOUBLE BRANCH 45°

Dimension (mm)	Dimension (mm)
50 x 50	110 x 110
75 x 50	160 x 50
75 x 75	160 x 75
110 x 50	160 x 110
110 x 75	160 x 160



BLIND CAP

Dimension (mm)
110
160
200



CLEANOUT

Dimension (mm)
75
110
160

Property	Astm Method	Unit	PP-Terra PP-B
Melt Flow Index	D1238	g/10min	0.3
Tensile strength	D638	Kg/square.cm	340
Elongation	D638	%	500
Flexural modulus	D790	Kg/square.cm	18,000
Izod Impact (23o C) Strength (-10o C)	D256	Kg.cm/cm	N.B 8
Hardness	D785	R-scale	80

PP Terra is produced using a 100% pure and virgin polypropylene material, PP Terra product is in compliance with the European standard EN 1451 for soil and waste discharge (low and high temperatures).

Applications:

- Drainage of domestic waste water (low and high temperatures)
- For aggressive fluids in schools, laboratories and industrial buildings.
- Drainage of rainwater inside the building structure.
- Ventilation pipes connected to the waste system.

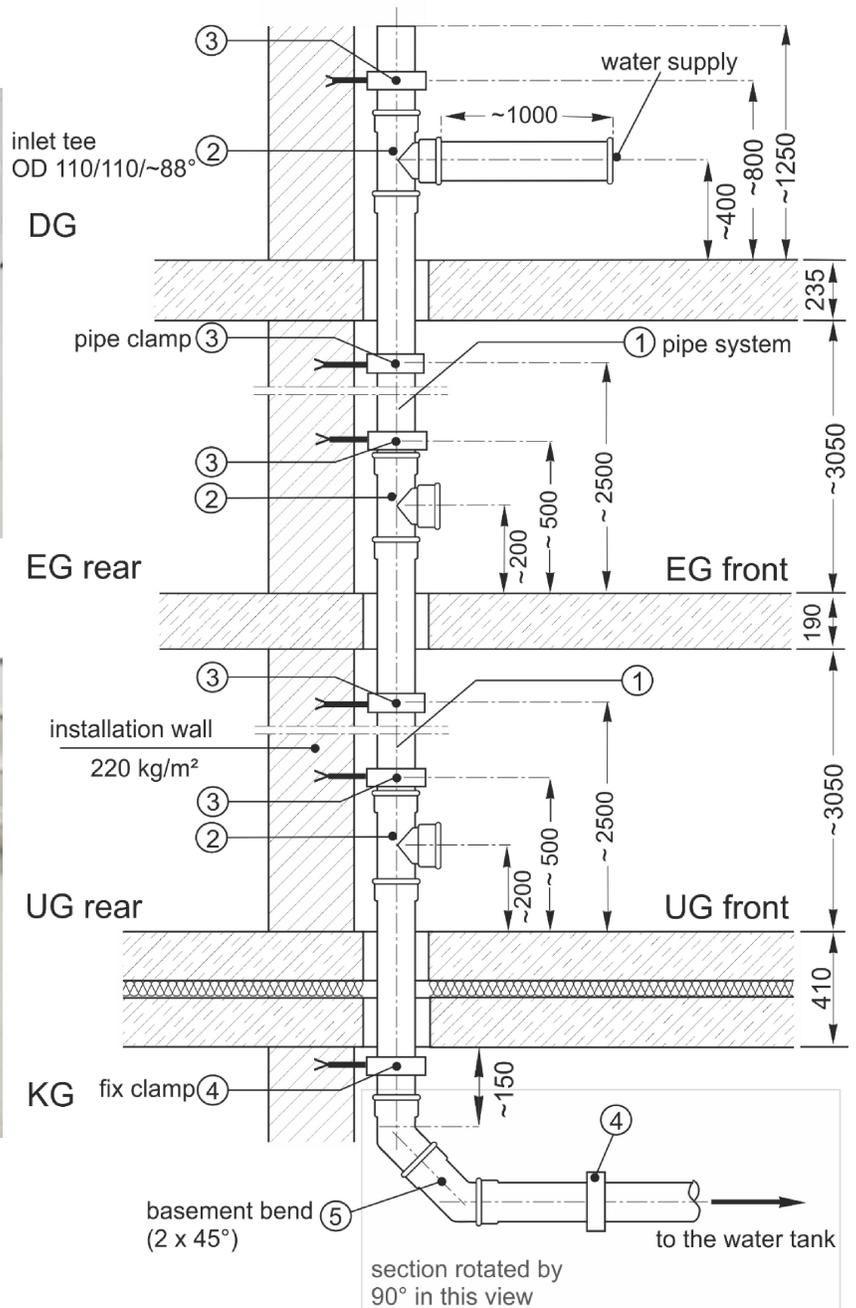


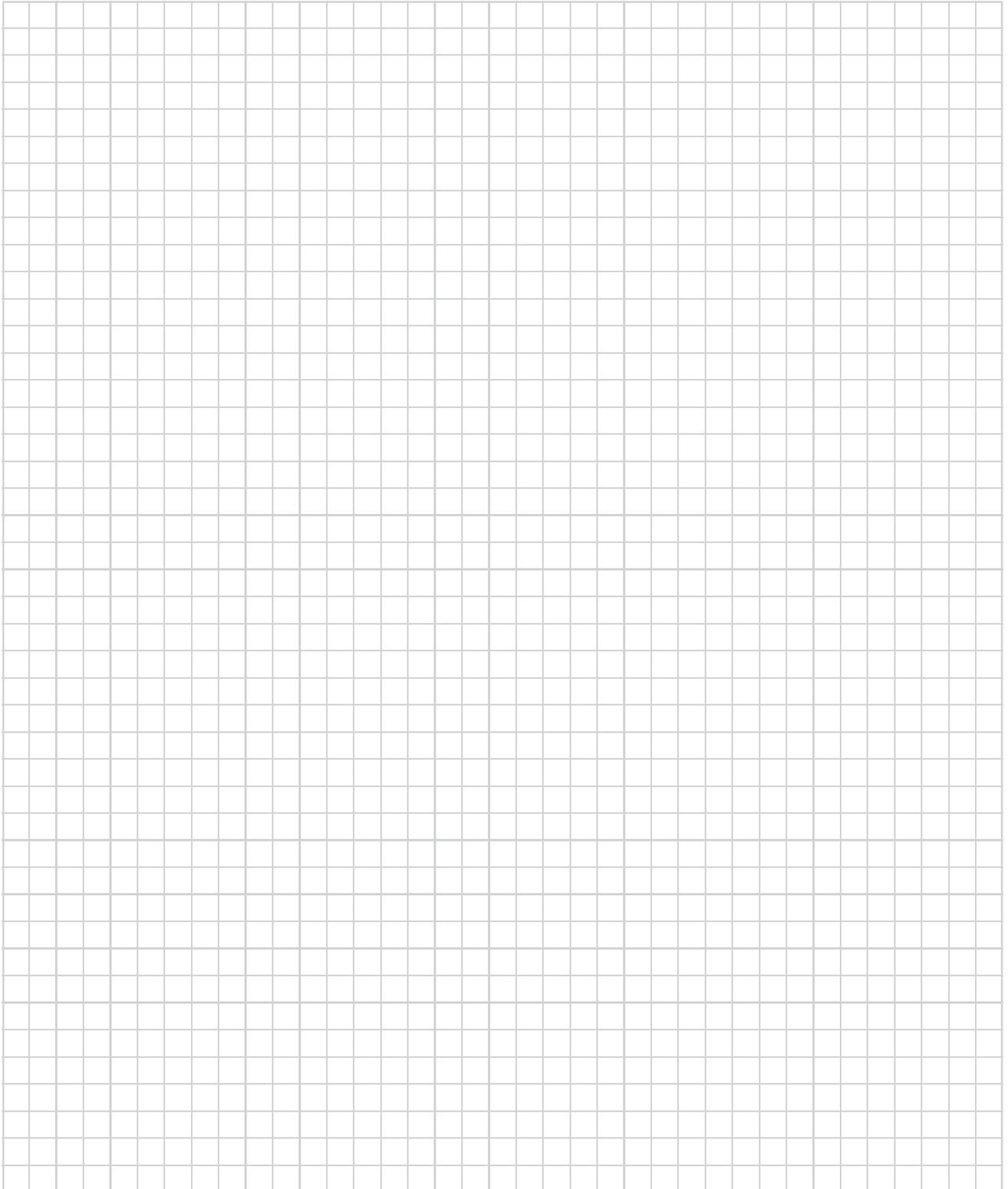
DOUBLE BRANCH 87°

Dimension (mm)
110 x 110

Installation sound level $\overline{L_{A\text{F}eq,nT}}$ [dB(A)] following VDI 4100 measured in the basement test-room

UG front	43	46	49	52
UG rear	11	15	17	21







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