

# PHONOBLACK

## Soundproof PVC-U Soil & Waste System

phono)) black

1.1 PHONOBLACK



Push-Fit PVC-U Pipe and Fittings  
13 dB - 2 l/s Acoustic Performance  
B s1 d0 Fire Reaction Euroclass

aliaxis



# The Acoustic PVC Choice

The new Phonoblack by REDI PVC mineral additives strengthened formula guarantees excellent acoustic performance. Phonoblack is designed and developed to satisfy low levels of noise emissions of waste water systems according to the different in force norm and standards.

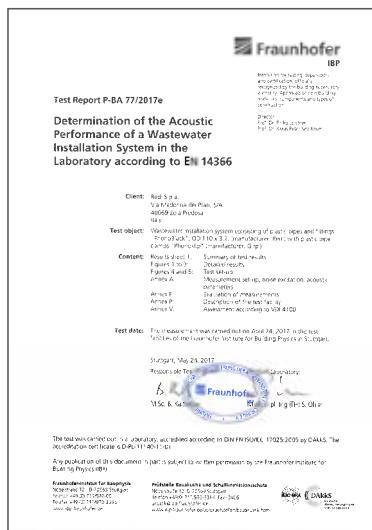
- PVC is a sustainable and low environmental footprint material, it is lead free and completely recyclable.
- PVC allows the installation of both push-fit and solvent welded joints. It allows an excellent quick fit and give flexibility to the installers.
- PVC is suitable to be easily used to install soundproof acoustic system both for new and renovation building applications, also combined on the already installed different type of waste water systems.
- PVC has an excellent chemical resistance to several agents like acids, alkalies, salts and organic compound solved into the water.

## General characteristics of PVC

- Name: Polyvinyl Chloride
- Color: RAL 9005 - Black
- Operation Temperature Range: 70 °C is the MAX temperature of waste water in permanent conditions. For discontinuous drainage applications as common household appliances discharge, instant peak of 95 °C are allowed.



Phonoblack Euroclass certified by AFITI



Sound performance certified by Fraunhofer



## High Level System

New and innovative PVC-U compound formula with mineral additives that provide excellent performances.



## Fire Reaction

Phonoblack is certified as B s1 d0 Fire Reaction Euroclass applied to plastic material made soil and waste drainage systems according to the EN 13501 standard



## Complete Range

Pipe and Fittings available starting from Ø40 up to Ø160. Both Single and Double Socket Pipes available in 0.5, 1, 2 and 3 m length.



## Exclusivity

The only one Soundproof PVC Push-Fit system also available in Ø100 on the market



## Acoustic Performance

13 dB - 2 l/s acoustic performance certified by the Stuttgart Fraunhofer Physical Constructions Institute according to EN 14366 standard (P-BA 77 / 2017e).

# Strength Points

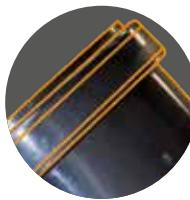
REDI presents Phonoblack: the acoustic soil and waste system made in black PVC-U, mineral additives-strengthened, fire resistant (B s1 d0 Euroclass), available with patented and certified acoustic brackets for each diameter.

Phonoblack offers a complete range of pipes and fittings for soil and waste water applications. The innovative specific compound guarantees the soundproof performances, high chemical resistance, excellent mechanical performances even at low temperatures.



## 1 High quality gaskets (SBR and EPDM)

The lip seal gaskets guarantee a perfect sealing even in difficult conditions. They are slightly lubricated and temporarily removable during the installation without any issue.



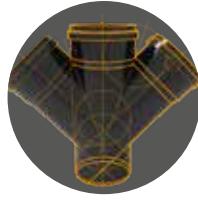
## 2 Total safety

Phonoblack guarantees complete sealing thanks to the square profile of the socket, even in severe working conditions (low temperatures, exposure to chemical agents)



## 3 High flow capacity

Thanks to the excellent smooth surface of the new PVC compound strengthened with mineral additives, Phonoblack guarantees a perfect water flow avoiding irregular outflows and clogs that cause annoying noises



## 4 Soundproof geometry

The geometry of the Phonoblack fittings provide a high soundproof performance limiting the noises generated by water flow on the impact areas



## 5 Easy installation

Phonoblack is the ideal solution in renovations, allowing both the push-fit and solvent welded connections to the existing pipes.



## 6 Compact fittings

The range of Phonoblack fittings, ensures a versatile and compact system, easy to handle and ideal for specific situations where the space is limited

# Phonoklip

## brackets for the best performance



### Essential

Brackets are essential to anchor and guide the piping network improving its performances



### Patented and certified

The new Phonoklip brackets are patented and certified to reach the best acoustic performances

### Totally plastic

The Phonoklip bracket, thanks to its full plastic structure, guarantees durability, flexibility and exceptional mechanical strength



For guiding purposes, keep the red spacer ring in position so that the pipe is allowed to move freely.

### Wide range

Wide range of diameters:

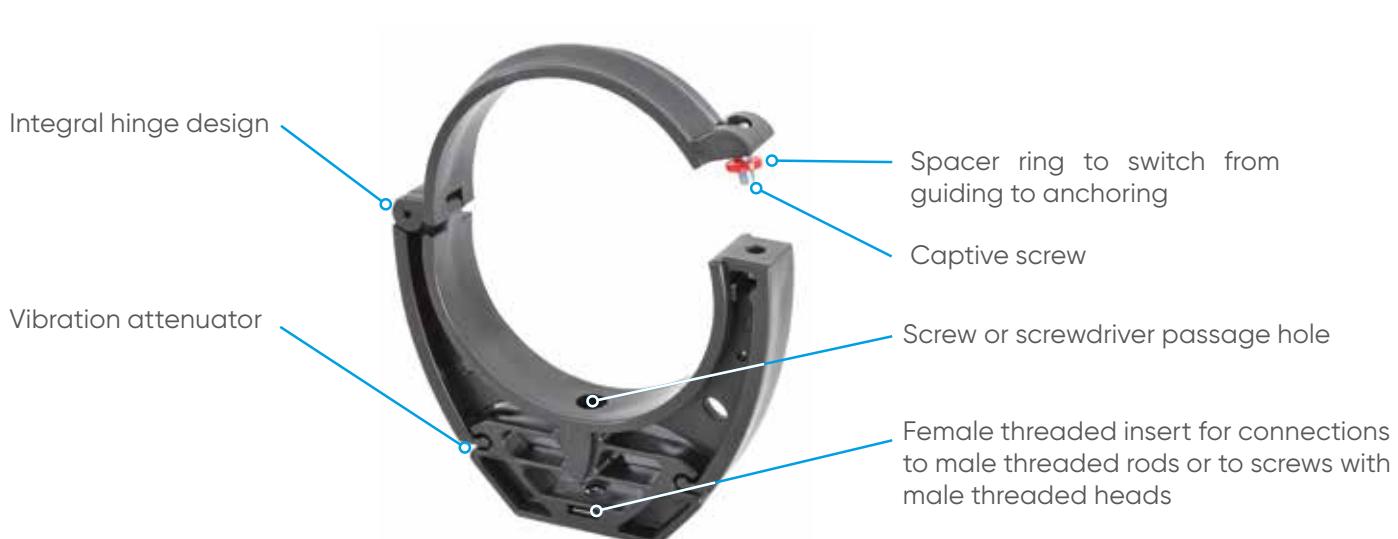
$\varnothing$  50-75-90-100-110-125-160



For anchoring purposes, remove the red spacer ring before closing the bracket

### Horizontal and vertical installation

Phonoklip brackets can be indifferently installed horizontally and vertically, both for anchoring and guiding purposes. Using Phonoklip brackets Phonoblack system reaches the highest possible performances.



## Distance between Phonoklip brackets

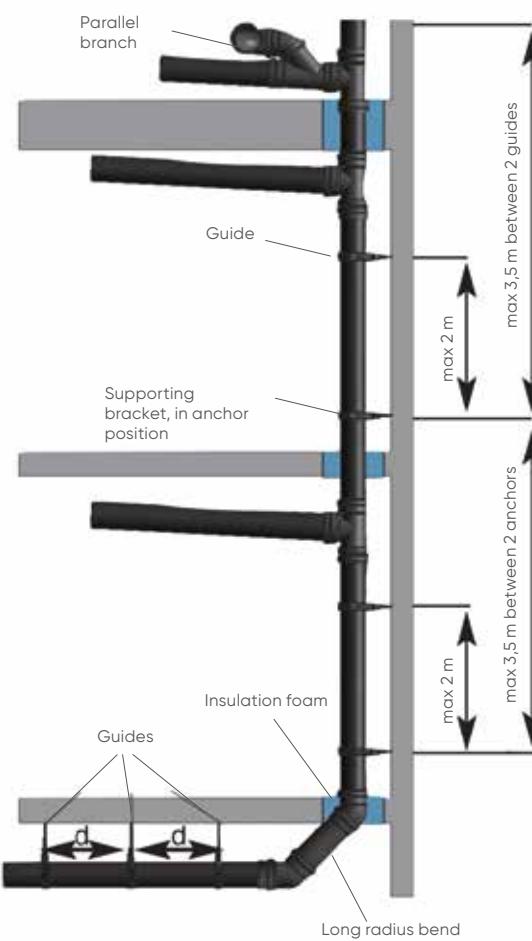
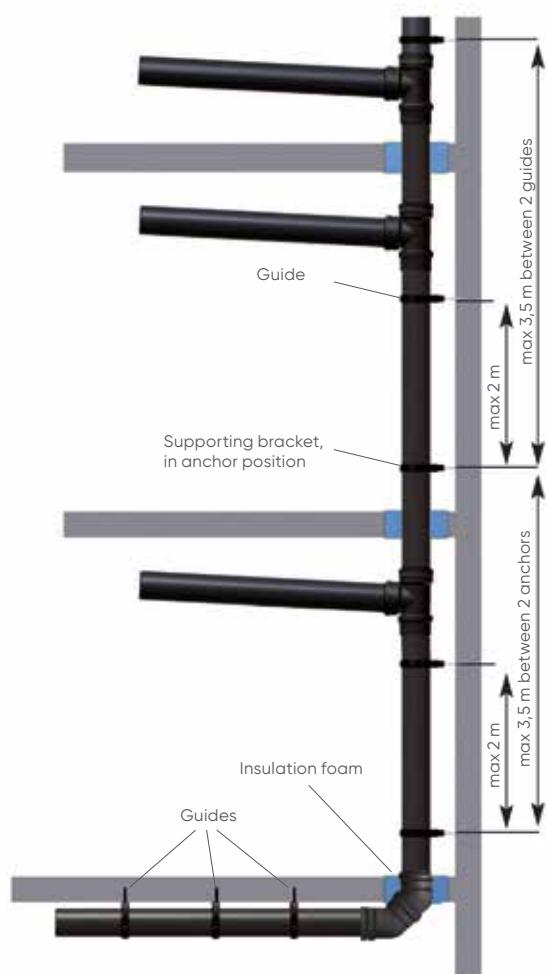
For vertical pipes 2 brackets must be used at each floor level:

- 1 anchor
- 1 guide

For horizontal pipes, the distance are:

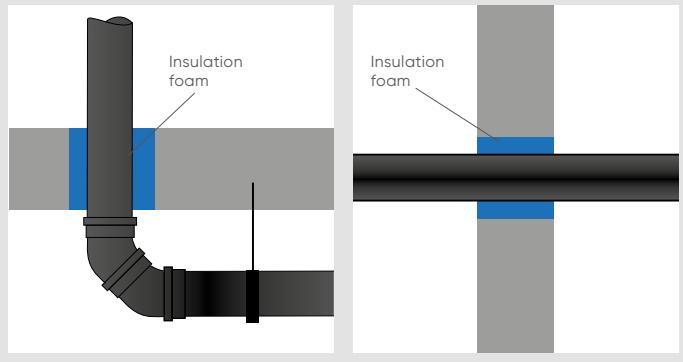
- DN 50 = 0,50 m
- DN 75 - DN 125 = 0,80 m
- DN 160 = 1,00 m

### Alternative configuration for pipes drops above 10 m



### Acoustic insulation of pipes passing through floors, partitions and walls

In order to limit the transmission of structural noise, pipes must be disconnected by floors, partitions and walls each time they pass through, by use of foam or insulating material (minimum thickness 4 mm).



## Different Situations, Unique Solution



Phonoblock can be easily connected to the existing PVC soil and waste system using a slip coupler or any other fitting by solvent welding jointing technique.



Phonoblock PVC pipe, allows the direct connection in any point along the piping stack.

A new cross connection can be easily done thanks to the PVC saddle, which avoids a branch installation and let to save slab space.

### Tender specifications

Soundproof and fire resistant pipes and fittings system for soil and waste systems inside buildings; it can be located in a specific technical shaft, fixed with noise-insulating supports or directly embedded in the wall. Phonoblock system is made of thermoplastic mineral reinforced material.

Acoustic performance certified by German Fraunhofer Institute according to EN 14366 (13 dB at 2/l s flow rate, using Phonoklip acoustic bracket).

Push-Fit system with elastomeric lip seals certified according to the EN 681 and DIN 4060.

Pipes and fittings branded "Phonoblock by REDI".

Fire reaction B s1 d0 according to the EN 13501 standard.

### Handling and storage

It is recommended to always store pipes on flat surfaces, in dry conditions and UV-protected place. Pallets must be stored at 3 m maximum height.

Take care to handle pipes and fittings.

Excessive scratch or impact stress on the pipe may have damage on the external surface or can affect seal properties.

Take extra care to handle pipes and fittings during the winter: the low temperatures reduce the plastic material resistance to impact stress.

## PVC - Chemical resistance

Product	Conc. %	Temp. 20 °C	Temp. 60 °C	Product	Conc. %	Temp. 20 °C	Temp. 60 °C
ACETIC ACID	60	S	L	HYDROFLUORIC ACID	60	L	NS
ACETIC ACID MONOCHLORIDE	SOL.	S	L	HYDROGEN	100	S	S
ACETIC ALDEHYDE	100	NS	-	HYDROGEN DIOXIDE	30	S	S
ACETIC ANHYDRIDE	100	NS	NS	HYDROGEN SULPHIDE	100	S	S
ACETONE	100	NS	NS	IRON CHLORIDE	SOL. SAT.	S	S
ADIPIC ACID	SOL. SAT.	S	L	LACTIC ACID	10	S	L
ALLYL ALCOHOL	90	L	S	LACTIC ACID	10~90	L	NS
ALUMINUM CHLORIDE	SOL. SAT.	S	S	LEAD ACETATE	SOL. SAT.	S	S
ALUMINUM SULPHATE	SOL. SAT.	S	S	LEAD TETRAETHYL	100	S	-
AMMONIA (AQUEOUS)	100	L	NS	MAGNESIUM CHLORIDE	SOL. SAT.	S	S
AMMONIA (GAS)	100	S	S	MAGNESIUM SULPHIDE	SOL. SAT.	S	S
AMMONIA (SOLUTION)	SOL. DIL.	S	L	MALEIC ACID	SOL. SAT.	S	L
AMMONIUM CHLORIDE	SOL. SAT.	S	S	METHYL ALCOHOL	100	S	L
AMMONIUM FLUORIDE	20	S	L	METHYL METHACRYLATE	100	NS	NS
AMMONIUM NITRATE	SOL. SAT.	S	S	METHYLENE CHLORIDE	100	NS	NS
AMMONIUM SULPHATE	SOL. SAT.	S	S	MILK		S	S
AMYL ACETATE	100	NS	NS	NICKEL SULPHIDE	SOL. SAT.	S	S
AMYL ALCOHOL	100	S	L	NICOTINIC ACID	CONC.	S	S
ANILINE	100	NS	NS	NITRIC ACID	<46	S	L
ANILINE	SOL. SAT.	NS	NS	NITRIC ACID	46~98	NS	NS
ANILINE HYDROCHLORIDE	SOL. SAT.	NS	NS	OILS		S	S
ANTIMONY CHLORIDE	90	S	S	OLEIC ACID	100	S	S
ARSENIC ACID	SOL. DIL.	S	-	OLEUM	10% OF SO	NS	NS
BEER		S	S	OXALIC ACID	SOL. DIL.	S	L
BENZALDEHYDE	0,1	NS	NS	OXALIC ACID	SOL. SAT.	S	S
BENZENE	100	NS	NS	OXYGEN	100	S	S
BENZOIC ACID	SOL. SAT.	L	NS	OZONE	100	NS	NS
BORAX	SOL. SAT.	S	L	PERCHLORIC ACID	10	S	L
BORIC ACID	SOL. DIL.	S	L	PERCHLORIC ACID	70	L	NS
BROMINE (LIQUID)	100	NS	NS	PETROL	80/20	NS	NS
BROMINE ACID	10	S	-	PHENOL	90	NS	NS
BUTADIENE	100	S	S	PHOSPHINE	100	S	S
BUTANE	100	S	-	PHOSPHOR TRICHLORIDE	100	NS	-
BUTYL ACETATE	100	NS	NS	PHOSPHORIC ACID	30	S	L
BUTYL PHENOL	100	NS	NS	PICRIC ACID	SOL. SAT.	S	S
BUTYLENE	100	S	L	POTASSIUM BICHROMATE	40	S	S
BUTYRIC ACID	20	S	L	POTASSIUM BROMIDE	SOL. SAT.	S	S
BUTYRIC ACID	98	NS	NS	POTASSIUM CHLORIDE	SOL. SAT.	S	S
CALCIUM CHLORIDE	SOL. SAT.	S	S	POTASSIUM CHROMATE	40	S	S
CALCIUM NITRATE	50	S	S	POTASSIUM CYANIDE	SOL.	S	S
CARBON DIOXIDE	100	S	S	POTASSIUM FERRICYANIDE	SOL. SAT.	S	S
CARBON SULPHIDE	100	NS	NS	POTASSIUM FERROCYANIDE	SOL. SAT.	S	S
CARBON TETRACHLORIDE	100	NS	NS	POTASSIUM HYDROXIDE	SOL.	S	S
CETYL ACID	100	S	S	POTASSIUM NITRATE	SOL. SAT.	S	S
CHLORINE (DRY GAS)	100	L	NS	POTASSIUM PERMANGANATE	20	S	S
CHLORINE (LIQUID)	SOL. SAT.	L	NS	POTASSIUM PERSULFATE	SOL. SAT.	S	L
CHLOROSULPHONIC ACID	100	L	NS	PROPANE (GAS LIQUID)	100	S	-
CHROMIC ACID	1~50	S	L	PYRIDINE	100	NS	-
CITRIC ACID	SOL. SAT.	S	S	SEA WATER		S	L
COPPER CHLORIDE	SOL. SAT.	S	S	SILVER NITRATE	SOL. SAT.	S	L
COPPER FLUORIDE		S	S	SOAP	SOL.	S	L
CREOSOL	SOL. SAT.	-	NS	SODIUM BENZOATE	35	S	L
CRESOL ACID	SOL. SAT.	NS	NS	SODIUM BISULPHITE	SOL. SAT.	S	S
CROTONIC ALDEHYDE	100	NS	NS	SODIUM CHLORATE	SOL. SAT.	S	S
CYCLOHEXANOL	100	NS	NS	SODIUM FERRICYANIDE	SOL. SAT.	S	S
CYCLOHEXANONE	100	NS	NS	SODIUM HYDROXIDE	SOL.	S	L
DEVELOPING BATH		S	S	SODIUM HYPOCHLORITE	100 (13% CL.)	S	L
DEXTRINE	SOL. SAT.	S	L	SODIUM SULPHITE	SOL. SAT.	S	L
DICHLOROETHYLENE	100	NS	NS	SUGAR	SOL. SAT.	S	S
DIGLYCOLIC ACID	18	S	L	SULPHUR ACID	SOL.	S	S
DIMETHYLMAMLINE	30	S	-	SULPHUR ANHYDRIDE	100 (LIQUID)	L	NS
ETHYL ACETATE	100	NS	NS	SULPHUR ANHYDRIDE	100 (DRY)	L	NS
ETHYL ACRYLATE	100	NS	NS	SULPHURIC ACID	40~90	S	L
ETHYL ALCOHOL	95	S	L	SULPHURIC ACID	96	L	NS
ETHYL ETHER	100	NS	L	TANNIC ACID	SOL.	S	S
ETHYLENE GLYCOL	CONC.	L	L	TARTARIC ACID	SOL.	S	S
FLUOSILICIC ACID	32	S	S	TIN CHLORIDE	SOL. SAT.	S	S
FORMALDEHYDE	SOL.	S	S	TOLEUENE	100	NS	NS
FORMALDEHYDE	40	S	S	TRICHLOROETHYLENE	100	NS	NS
FORMIC ACID	1~50	S	L	TRIMETHYL PROPANE	<10	S	L
FURFURAL ALCOHOL	100	NS	NS	UREA	10	S	L
GLUCOSE	SOL. SAT.	S	L	URINE		S	L
GLYCERIN	100	S	S	VINAGRE		S	S
GLYCOLIC ACID	30	S	S	VINYL ACETATE	100	NS	NS
GOLDEN SYRUP	SOL.	S	L	WINE		S	S
HYDRAZINE BENZENE	100	NS	NS	XYLENE	100	NS	NS
HYDRAZINE BENZENE CLORIC	97	NS	NS	YEAST	SOL.	S	L
HYDROBROMIC ACID	50	S	L	ZINC CHLORIDE	SOL. SAT.	S	S
HYDROCHLORIC ACID	>30	S	S				

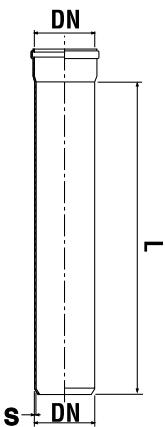
TS = Without corrosion

L = Limited corrosion

NS = Corrosion

For special applications it is recommended to contact the REDI Technical Department.

**Single socket pipe M/F**  
**Tube M/F - Tubo M/H**



DN (mm)	L (ml.)	S (mm)	Reference			Note
40	0,50	3	V0504P8	20	20	
40	1,00	3	V0104P8	20	20	
40	2,00	3	V0204P8	20	20	
40	3,00	3	V0304P8	20	20	
50	0,50	3	V0505P8	20	20	
50	1,00	3	V0105P8	20	20	
50	2,00	3	V0205P8	20	20	
50	3,00	3	V0305P8	20	20	
75	0,50	3	V0575P8	10	10	
75	1,00	3	V0175P8	10	10	
75	2,00	3	V0275P8	10	10	
75	3,00	3	V0375P8	10	10	
90	0,50	3	V0509P8	10	10	
90	1,00	3	V0109P8	10	10	
90	2,00	3	V0209P8	10	10	
90	3,00	3	V0309P8	10	10	
100	0,50	3	V0510P8	10	10	
100	1,00	3	V0110P8	10	10	
100	2,00	3	V0210P8	10	10	
100	3,00	3	V0310P8	10	10	
110	0,50	3,2	V0511P8	10	10	
110	1,00	3,2	V0111P8	10	10	
110	2,00	3,2	V0211P8	10	10	
110	3,00	3,2	V0311P8	10	10	
125	0,50	3,2	V0512P8	8	8	
125	1,00	3,2	V0112P8	8	8	
125	2,00	3,2	V0212P8	8	8	
125	3,00	3,2	V0312P8	8	8	
160	0,50	4	V0516P8	6	6	
160	1,00	4	V0116P8	6	6	
160	2,00	4	V0216P8	6	6	
160	3,00	4	V0316P8	6	6	



### Double socket pipe F/F

### Tube F/F - Tubo de doble embocadura H/H

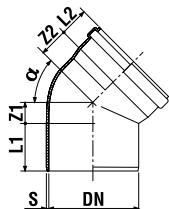
DN (mm)	L (ml.)	S (mm)	Reference			Note
40	0,50	3	VF504P8	20	20	
40	1,00	3	VF104P8	20	20	
40	2,00	3	VF204P8	20	20	
40	3,00	3	VF304P8	20	20	
50	0,50	3	VF505P8	20	20	
50	1,00	3	VF105P8	20	20	
50	2,00	3	VF205P8	20	20	
50	3,00	3	VF305P8	20	20	
75	0,50	3	VF575P8	10	10	
75	1,00	3	VF175P8	10	10	
75	2,00	3	VF275P8	10	10	
75	3,00	3	VF375P8	10	10	
90	0,50	3	VF509P8	10	10	
90	1,00	3	VF109P8	10	10	
90	2,00	3	VF209P8	10	10	
90	3,00	3	VF309P8	10	10	
100	0,50	3	VF510P8	10	10	
100	1,00	3	VF110P8	10	10	
100	2,00	3	VF210P8	10	10	
100	3,00	3	VF310P8	10	10	
110	0,50	3.2	VF511P8	10	10	
110	1,00	3.2	VF111P8	10	10	
110	2,00	3.2	VF211P8	10	10	
110	3,00	3.2	VF311P8	10	10	
125	0,50	3.2	VF512P8	8	8	
125	1,00	3.2	VF112P8	8	8	
125	2,00	3.2	VF212P8	8	8	
125	3,00	3.2	VF312P8	8	8	



### Acoustic pipe insulation

### Gaine d'isolation phonique - Funda de aislamiento acústico

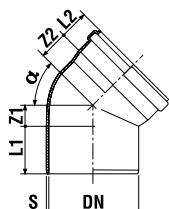
DN (mm)	DN Pipe (mm)	Reference			S Thick.	Note
80	75 - 80 - 90	CD08500	6	12	5	15 metre-roll
110	100 - 110	CD11500	5	10	5	15 metre-roll
110	100 - 110	CD11100	5	-	10	15 metre-roll



### Bend 15° M/F Coude 15° M/F - Codo 15° M/H

DN (mm)	Reference			S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
40	01004P8	25	2.025	3	3	27	48	41	
50	01005P8	15	1.215	3	4	17	53	45	
75	01007P8	8	648	3	5	18	50	45	
● 90	01009P8	5	260	5.1	11	14	59	55.7	
110	01011P8	5	260	3.2	9	22	62	57	
125	01012P8	4	208	3.2	10	22	68	63	
160	01016P8	4	96	4.0	14	28	82	72	

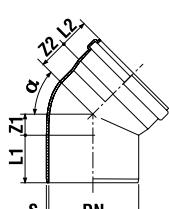
● High thickness / À paroi épaisse / Alto espesor



### Bend 30° M/F Coude 30° M/F - Codo 30° M/H

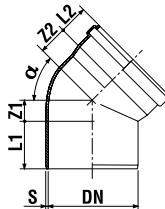
DN (mm)	Reference			S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
40	01104P8	25	2.025	3	5	19.5	49	41	
50	01105P8	15	1.215	3	8	20	53	45	
75	01107P8	8	648	3	11	24	50	45	
● 90	01109P8	5	260	5.1	17	18	59	55.7	
100	07810P8	5	260	3.2	12	20	68	56	
110	01111P8	4	208	3.2	17	29	61	57	
125	01112P8	6	144	3.2	19	29	68	62	
160	01116P8	3	72	4.0	25	40	82	72	

● High thickness / À paroi épaisse / Alto espesor



### Bend 45° M/F Coude 45° M/F - Codo 45° M/H

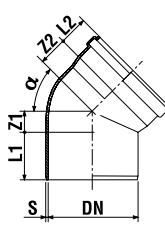
DN (mm)	Reference			S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
40	07004P8	30	2.430	3	8	22	48	36	
50	07005P8	20	1.620	3	10	24	52	40	
75	07307P8	10	520	3.2	16	25	52	45	
90	01209P8	5	260	3	23	33	56	54	
100	07010P8	10	240	3	20	35	62	53	
110	01211P8	4	208	3.2	27	39	58	50	
125	07012P8	6	144	3.2	29	42	68	62	
160	07016P8	3	72	4.0	37	50	80	66	



### Bend 67°30' M/F Coude 67°30' M/F - Codo 67°30' M/H

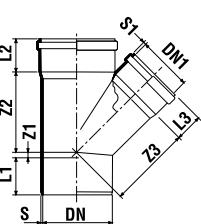
DN (mm)	Reference			S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
75	01307P8	9	468	3	25	40	60	51	
• 90	01309P8	5	260	5.1	36	42	59	55,7	
100	07210P8	3	156	3.2	33	53	75	57	
110	01311P8	6	144	3.2	41	53	62	56	
125	01312P8	6	144	3.2	46	60	69	62	
160	01316P8	2	48	4.0	60	74	82	74	

• High thickness / À paroi épaisse / Alto espesor



### Bend 87° M/F Coude 87° M/F - Codo 87° M/H

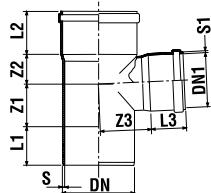
DN (mm)	Reference			S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
40	07104P8	30	2.430	3	20	32	43	36	
50	07105P8	20	1.040	3	23	40	53	40	
75	07407P8	9	468	3.2	52	58	50	45	
90	07109P8	5	260	3	47	57	56	54	
100	07110P8	10	240	3	47	63	63	55	
110	07111P8	3	156	3.2	59	69	58	50	
125	07112P8	5	120	3.2	67	79	69	62	
160	07116P8	2	48	4.0	84	100	80	66	



### Branch 45° M/F Culotte 45° M/F - Derivación 45° M/H

DN/DN1 (mm)	Reference			S (mm)	S1 (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L2 (mm)
40/40	08004P8	20	1.040	3	3	9	52	52	49	45
50/50	08005P8	10	520	3.2	3.2	14	70	70	48	40
75/50	03127P8	6	312	3.2	3.2	-	85	-	42	45
75/75	08807P8	4	208	3.2	3.2	15	93	93	51	45
• 90/50	03128P8	5	260	5,5	3	10	77	100	53	53
90/90	08809P8	6	144	3	22	119	119	56	54	54
100/40	08310P8	10	240	3	3	-20	84	95	84	60
100/50	08330P8	3	156	3	3	-14	90	101	72	60
100/100	08810P8	6	144	3.2	3.2	25	131	131	60	53
110/50	03131P8	6	144	3.2	3.2	-14	102	114	63	55
110/75	03151P8	6	144	3.2	3.2	3	120	127	63	55
110/110	03011P8	4	96	3.2	-	27	143	143	58	50
125/110	03192P8	2	48	3.2	3.2	19	147	152	69	62
125/125	08012P8	2	48	3.2	-	30	161	161	71	62
160/110	03116P8	2	48	4.0	3.2	2	168	176	82	74
160/160	03016P8	4	32	4.0	-	38	205	205	83	71

• High thickness / À paroi épaisse / Alto espesor



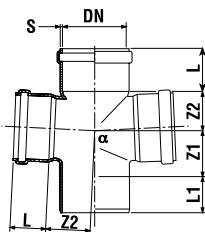
♦ Ref. 0813P8

## Branch 87°30' M/F Culotte 87°30' M/F - Derivación 87°30' M/H

DN/DN1 (mm)	Ref.			S (mm)	S1 (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L2 (mm)
40/40	08104P8	15	1.215	3.2	3.2	25	33	33	44	36
50/50	08105P8	14	728	3.2	3.2	29	38	38	48	40
75/40	03507P8	4	324	3.2	3.2	25	35	50	48	45
75/50	03527P8	6	312	3.2	3.2	30	40	52	53	45
75/75	08907P8	5	260	3.2	3.2	37	39	58	66	50
• 90/50	03528P8	5	260	5,5	3	39	31	47	53	53
• 90/90	03409P8	5	120	5.1	4.5	49	51	51	59	55.7
100/50	08430P8	10	240	3.2	2.8	23	44	63	65	53
100/100	08110P8	5	120	3.2	3.2	55	64	64	55	53
110/50	03531P8	6	144	3.2	3.2	30	40	70	63	55
110/75	03571P8	6	144	3.2	3.2	43	54	70	63	55
♦ 110/110	08913P8	5	120	3.2	2.9	146	62	57.5	57.5	95.5
125/110	03572P8	4	96	3.2	3.0	84	58	92	78	77
125/125	08112P8	3	72	3.2	3.2	66	70	78	62	62
160/110	03516P8	10	80	4.0	3.2	59	69	37	81	74
160/160	08116P8	5	40	4.0	-	76	98	98	88	74

• High thickness / À paroi épaisse / Alto espesor

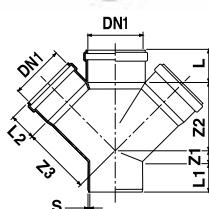
♦ Long radius



## Double Branch 87°30' M/F

## Té double 87°30' M/F - Derivación doble 87°30' M/H

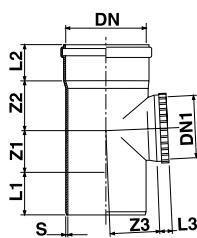
DN (mm)	Reference			$\alpha$	S (mm)	Z1 (mm)	Z2 (mm)	L1 (mm)	L2 (mm)	Note
110/110	03811P8	2	48	87°30'	3.2	62	70	70	80	



## Double Branch 45° M/F

## Culotte double 45° M/F - Derivación doble 45° M/H

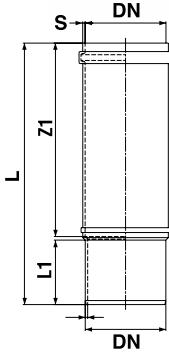
DN/DN1/DN1 (mm)	Ref.			S (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L (mm)	L1 (mm)
100/40/40	04150P8	2	104	3	-20	93	105	60	75
100/50/50	04149P8	2	104	3	-15	99	110	60	64
110/110/110	03611P8	2	48	3.2	30	141	141	57	60



### Access pipe M/F

Té de visite M/F - Te M/H con boca de registro

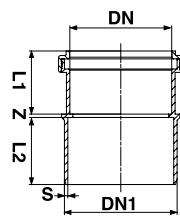
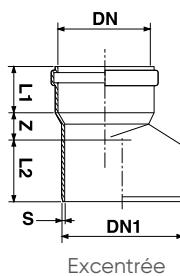
DN (mm)	Reference			S (mm)	Z1 (mm)	Z2 (mm)	Z3 (mm)	L1 (mm)	L2 (mm)
75	18207P8	6	312	3.2	37	39	58	66	50
100	18210P8	6	144	3.2	55	64	64	55	53
110	18211P8	6	144	3.0	59	69	69	60	55
125	18212P8	2	104	3.2	66	70	78	62	62
160	18216P8	2	48	4.0	83	99	99	85	72



### Repairing coupler

Manchon de réparation - Manguito de reparación

DN (mm)	Reference			S (mm)	L1 (mm)	Z1 (mm)	L (mm)	Note
100	02910P8	5	170	3	80	240	324,4	
125	02912P8	5	110	3	80	240	324,4	

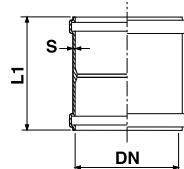
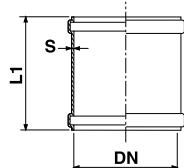


### Invert Reducer M/F

Réduction excentrée M/F - Ampliación excéntrica M/H

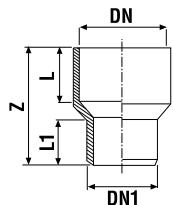
DN/DN1 (mm)	Reference			S (mm)	Z (mm)	L1 (mm)	L2 (mm)	Note
40/50	09005P8	25	2.025	3.2	22	42	48	
40/100	09048P8	10	520	3	48	42	58	
50/75	05107P8	15	1.215	3	30	45	48	
50/100	09010P8	8	648	3.2	45	45	61	
50/110	05111P8	6	486	3	51	45	70	
75/100	05033P8	6	486	3	31	50	61	
75/110	05131P8	6	486	3.2	35	45	63	
90/100	05310P8**	5	405	3	3	56	59,5	
90/110	05311P8**	5	260	3	3	56	63,5	
100/110	05331P8**	6	486	3	3	60	61	
100/125	09012P8	4	208	3	16	57	61	
110/125	05132P8	4	324	3.2	22	56	63	
110/160	05116P8	6	144	4.0	43	56	82	
110/160	0686348**	16	384	-	-	-	-	
125/160	05136P8	6	144	4.0	36	62	82	

\*\* Centrée / Escentrée / Concéntrico



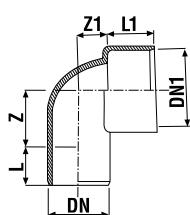
### Repair/Slip coupler F/F Manchon coulissant F/F - Manguito H/H

DN (mm)	Reference			S (mm)	L1 (mm)	Note
40	06144P8	30	2.430	2.2	57	
50	06145P8	20	1.620	2.2	67	
75	06107P8	10	810	2.5	92	
90	06109P8	6	312	2.5	104	
100	06110P8	5	260	2.5	116	
110	06111P8	4	208	2.9	122	
125	06112P8	4	208	2.9	141	
160	06116P8	4	96	3.6	154	
40	06344P8	40	2.080	-	57	with central stop / avec butée / con tope
50	06345P8	20	1.620	-	67	with central stop / avec butée / con tope
75	06307P8	10	810	2.5	92	with central stop / avec butée / con tope
90	06309P8	6	312	2.5	104	with central stop / avec butée / con tope
100	06310P8	5	260	2.5	116	with central stop / avec butée / con tope
110	06311P8	4	208	2.9	122	with central stop / avec butée / con tope
125	06312P8	4	208	2.9	68	with central stop / avec butée / con tope
160	06316P8	4	96	4.4	141	with central stop / avec butée / con tope



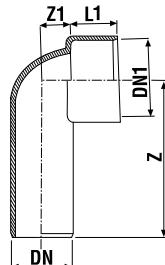
### Technical coupling M/F Manchon pour raccordements multi-matériaux M/F Manguito técnico M/H

DN (mm)	DN1 (mm)	Reference			L (mm)	L1 (mm)	Z (mm)	Note
50	40	09305P8	50	2.600	31,5	26,5	67,5	



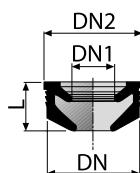
### Technical bend (with protection plug) M/F Coude (avec tampon de protection) M/F Codo técnico M/H (con tapa protectora)

DN (mm)	DN1 (mm)	Reference			L (mm)	L1 (mm)	Z (mm)	Z1 (mm)	Note
40	50	07424P8	20	1.620	62	70	70	-	



**Technical bend long version M/F**  
**Coude long (avec tampon de protection) M/F**  
**Codo técnico largo M/H (con tapa protectora)**

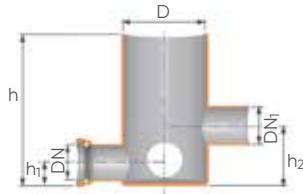
DN (mm)	DN1 (mm)	Reference			L1 (mm)	Z (mm)	Z1 (mm)	Note
40	50	07454P8	20	1.040	33	150	17	



**Gasket**  
**Joint - Junta de goma**

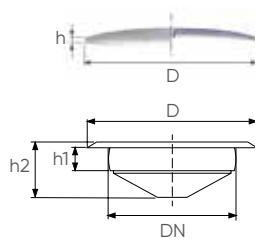
DN (mm)	DN1 (mm)	DN2 (mm)	Reference			L (mm)	Note
50	1"	55	6820502	50	6000	19	
50	1" 1/4	56	6820500	50	6000	19	
50	1" 1/2	55	6820501	50	6000	19	

1" = 26 mm. 1" 1/4 = 32 mm. 1" 1/2 = 40 mm.



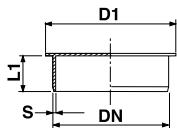
**Floor gullies whit multiple inlets**  
**Siphonnette à entrée multiples**  
**Bote sifónico 3 entradas 1 salida**

D (mm)	DN 3 inlets	DN1 1 inlet	Reference			h (mm)	h1 (mm)	h2 (mm)	Material
100	40	40	Z9511P8	20	160	200	30	80	PP



**Plug for floor gully with stainless steel plate**  
**Bouchon pour collecteur avec tournette en acier inox**  
**Tapa bote sifónico con embellecedor acero inoxidable**

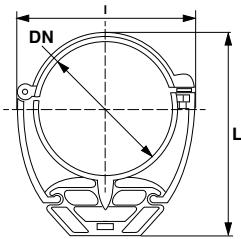
DN (mm)	Reference			D (mm)	h (mm)	h1 (mm)	h2 (mm)	Note
100	Z7450PP	20	1.040	135	3	19	44,9	



### Socket plug Bouchon de fermeture - Tapón

DN (mm)	Reference			D1 (mm)	S (mm)	L1 (mm)	Note
40	06604P8	10	10.400	45	2.5	18	
50	06605P8	10	7.800	55	2.5	20	
75	06507P8**	10	810	80	2.5	39	
90	06509P8**	8	648	125	3	52	
100	06699P8	15	1.215	125	3	56	
110	06611P8	10	810	126	3.2	38	
125	06612P8	8	648	142	3.2	42	
160	06616P8	4	324	180	4.0	49	

\*\*Screwing version / Vérsion à visser/ Versión roscada



### PHONOKLIP Acoustic brackets Collier coulissant isophonique Abrazadera acústica

DN (mm)	Reference			Filetto $\varnothing$	L (mm)	I (mm)	Note
50	PHONK50	10	-	M8	76	78	
75	PHONK75	10	-	M8	112	111	
90	PHONK90	10	-	M8	144	131	
100	PHONK10	10	-	M7	160	140	Screws M7
110	PHONK11	10	-	M8	171	150	
125	PHONK12	2	-	M10	213	170	
160	PHONK16	2	-	M10	245	213	