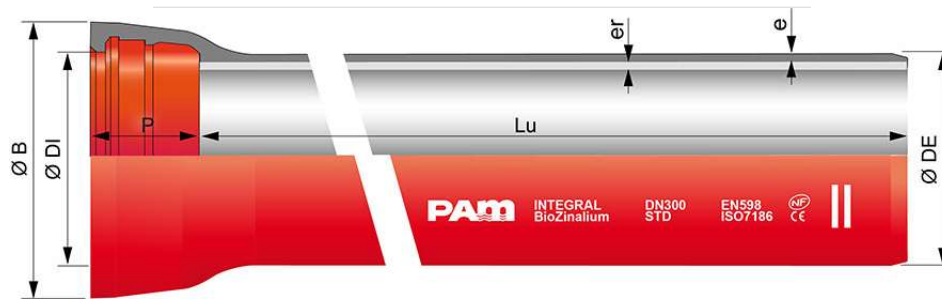


INTEGRAL BioZinalium pipes DN150 to 1000 with STANDARD socket



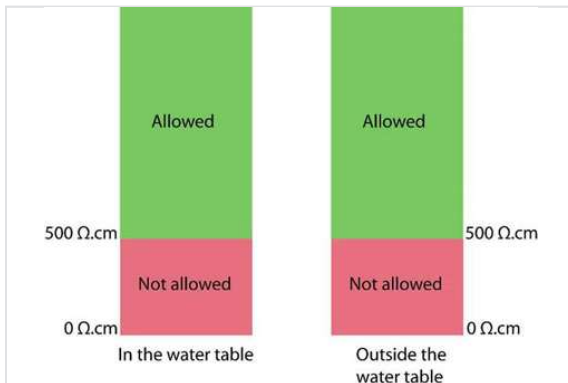
DN	Lu (m)	e (mm)	er (mm)	ØDE (mm)	ØDI (mm)	P (mm)	ØB (mm)	Mass (kg/m)	PFA	References
150	6.00	5	4	170	173.4	100.5	220.8	23.825	40 bar	TSB15S60BP
200	6.00	5.1	4	222	225.2	106.5	275.1	32.009	40 bar	TSB20S60BP
250	6.00	5.3	4	274	276.8	105.5	328.6	41.032	38 bar	TSB25S60BP
300	6.00	5.6	4	326	328.8	107.5	385.3	51.258	35 bar	TSB30S60BP
350	6.00	6	5	378	380.9	110.5	444.5	65.583	32 bar	TSB35S60BP
400	6.00	6.3	5	429	431.9	112.5	494.6	77.517	30 bar	TSB40S60BP
450	6.00	6.7	5	480	483	115.5	546.5	91.700	29 bar	TSB45S60BP
500	6.00	7	5	532	535	117.5	600.9	105.400	28 bar	TSB50S60BP
600	6.00	7.7	5	635	638.1	132.5	712	136.900	26 bar	TSB60S60BP
700	6.96	9.6	6	738	741.7	192	821.9	199.000	29 bar	TSB70E70BP
800	6.95	10.4	6	842	845.8	197	935.6	243.600	28 bar	TSB80E70BP
900	6.95	11.2	6	945	948.9	200	1043.4	291.500	27 bar	TSB90E70BP
1000	6.96	12	6	1048	1052	203	1152.4	343.100	26 bar	TSC10E70BP

Legend:

- DN: nominal diameter
- Lu: laying length, in m
- e: thickness according to EN598 + A1 – August 2009, in mm
- er: thickness of the cement mortar, in mm
- ØDE: external nominal diameter of the barrel according to EN598 + A1 – August 2009, in mm
- ØDI: internal nominal diameter of the socket, in mm
- P: nominal depth of the socket, in mm
- ØB: nominal diameter of the socket, in mm
- Mass: total mass per meter (including cement coating and socket), determined with the nominal thickness, in kg/m

- Reference: commercial reference Saint-Gobain PAM

Field of use:



- Separate sewer system and combined sewer system
- Application: gravity flow and rising main sewerage systems
- Type of effluent: domestic wastewater and rainwater
- Perfectly watertight
- For effluents between pH4 and pH12
- For the soils with $6 < \text{pH} < 9$
- Majority of the soils, except the acid peaty and polluted soils
- Suitable for clay soils
- Resistivity of the soils:

Main characteristics:

- External coating ^{Bio}Zinalium: a layer of zinc-aluminium alloy enriched with copper Zn85Al15 (Cu), with surface density of 400 g/m² covered with a protective red (RAL 3011) layer AQUACOAT 80 µm (mini average), without VOC and without BPA.
- Internal lining: aluminous cement mortar CALCOAT
- Socket coating: zinc rich paint 40 µm or zinc-aluminium 200 g/m² + red AQUACOAT 160 µm (mini average)
- Spigot coating: zinc-aluminium (Cu) 400 g/m² + red AQUACOAT 160 µm (mini average)
- Standard Gasket in Nitrile
- EN 598 / CE Marking
- NF mark
- Declaration of performances [DoP-INTEGRAL005EN](#)
- Designed in accordance with applicable regulations:
 - NF EN 476: general stipulations regarding components used in systems
 - NF EN 752: design of sewerage projects
 - NF EN 1610: acceptance of structures

- CCTG: Fascicule 70 (sewage work)

Linked products



Kit Standard INTEGRAL
Pipe + Standard Gasket



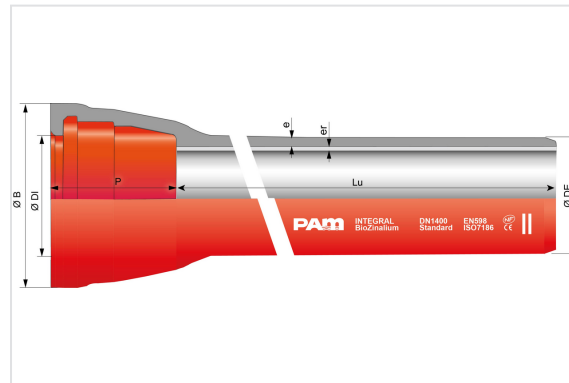
Kit Standard INTEGRAL
Pipe + Standard Vi Gasket



Lubricating paste -
CLASSIC, NATURAL,
INTEGRAL, and PLUVIAL
ranges

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INTEGRAL BioZinalium pipes DN1100 to 2000 with STANDARD socket

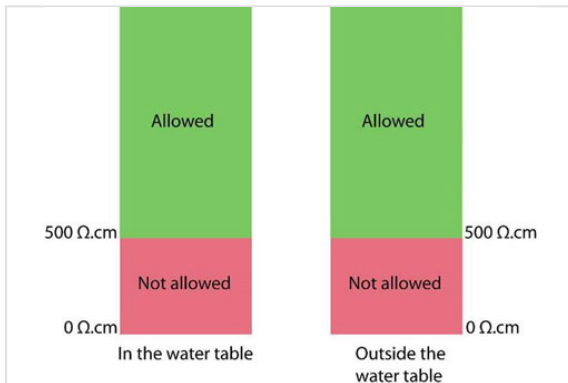


DN	Lu (m)	e (mm)	er (mm)	ØDE (mm)	ØDI (mm)	P (mm)	ØB (mm)	Mass (kg/m)	PFA	References
1100	8.19	14.4	6	1152	1155.1	225	1263.7	441.460	29 bar	TSC11N80BP
1200	8.19	15.3	6	1255	1260	235	1373.7	508.650	29 bar	TSC12N80BP
1400	8.17	17.1	9	1462	1467.9	245	1592.1	683.640	28 bar	TSC14N80BP
1500	8.16	18	9	1565	1571.1	265	1709.8	769.080	27 bar	TSC15N80BP
1600	8.16	18.9	9	1668	1674.2	265	1815.9	857.020	27 bar	TSC16N80BP
1800	8.15	20.7	9	1875	1881.5	275	2032.2	1042.200	27 bar	TSC18N80BP
2000	8.13	22.5	9	2082	2088.8	290	2259	1249.000	26 bar	TSC20N80BP

Legend:

- DN: nominal diameter
- Lu: laying length, in m
- e: thickness according to EN598 + A1 – August 2009, in mm
- er: thickness of the cement mortar, in mm
- ØDE: external nominal diameter of the barrel according to EN598 + A1 – August 2009, in mm
- ØDI: internal nominal diameter of the socket, in mm
- P: nominal depth of the socket, in mm
- ØB: nominal diameter of the socket, in mm
- Mass: total mass per meter (including cement coating and socket), determined with the nominal thickness, in kg/m
- Reference: commercial reference Saint-Gobain PAM

Field of use:



- Separate sewer system and combined sewer system
- Application: gravity flow and rising main sewerage systems
- Type of effluent: domestic wastewater and rainwater
- Perfectly watertight
- For effluents between pH4 and pH12
- For the soils with $6 < \text{pH} < 9$
- Majority of the soils, except the acid peaty and polluted soils
- Suitable for clay soils
- Resistivity of the soils: please refer to above drawing

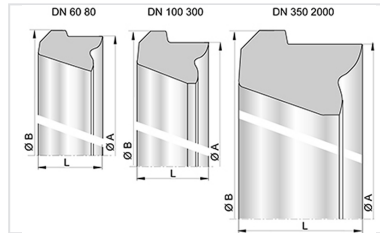
Main characteristics:

- External coating BioZinalium: a layer of zinc-aluminium alloy enriched with copper Zn85Al15 (Cu), with surface density of 400 g/m^2 covered with a protective red (RAL 3011) layer AQUACOAT $80 \text{ }\mu\text{m}$ (mini average), without VOC and without BPA.
- Internal lining: aluminous cement mortar CALCOAT
- Socket coating: zinc rich paint $40 \text{ }\mu\text{m}$ or zinc-aluminium 200 g/m^2 + red AQUACOAT $160 \text{ }\mu\text{m}$ (mini average)
- Spigot coating: zinc-aluminium (Cu) 400 g/m^2 + red AQUACOAT $160 \text{ }\mu\text{m}$ (mini average)
- Standard Gasket in Nitrile
- EN 598 / CE Marking
- NF mark
- Declaration of performances [DoP-INTEGRAL005EN](#)
- Designed in accordance with applicable regulations:
 - NF EN 476: general stipulations regarding components used in systems
 - NF EN 752: design of sewerage projects
 - NF EN 1610: acceptance of structures
 - CCTG: Fascicule 70 (sewage work)

Linked products



Kit Standard INTEGRAL
Pipe + Standard Gasket



Standard gasket for Pipes
and Fittings DN60-2000



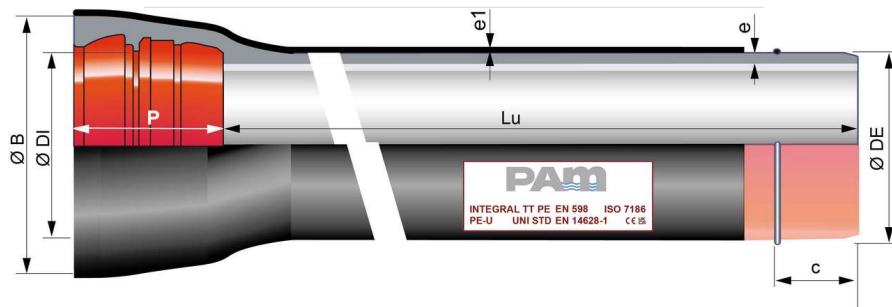
Lubricating paste -
BLUPAM



Lubricating paste -
NATURAL, INTEGRAL, and
PLUVIAL ranges

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INTEGRAL TT PE pipes DN150 to 1000 with UNIVERSAL STANDARD socket + Weld bead Ve



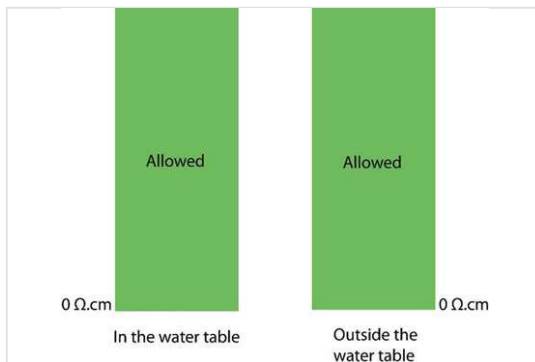
DN	Lu	e	e1	Ø DE	Ø DI	P	Ø B	Bead position c	Mass	PFA	References
150	5.97 m	6.2 mm	2 mm	170 mm	173.4 mm	148 mm	230 mm	95 mm	29.9 kg/m	60 bar	TFB15N60BG
200	5.97 m	6.5 mm	2 mm	222 mm	225.2 mm	155 mm	290 mm	100 mm	41.3 kg/m	52 bar	TFB20N60BG
250	5.97 m	6.8 mm	2 mm	274 mm	276.8 mm	166 mm	350 mm	110 mm	53.8 kg/m	46 bar	TFB25N60BG
300	5.97 m	7.4 mm	2.2 mm	326 mm	328.8 mm	180 mm	408 mm	115 mm	69.5 kg/m	41 bar	TFB30N60BG
350	5.97 m	7.7 mm	2.2 mm	378 mm	380.9 mm	184 mm	463 mm	115 mm	85.8 kg/m	38 bar	TFB35N60BG
400	5.97 m	8.1 mm	2.2 mm	429 mm	431.9 mm	176 mm	510 mm	113 mm	100.9 kg/m	35 bar	TFB40N60BG
450	5.97 m	8.6 mm	2.2 mm	480 mm	483 mm	190 mm	570 mm	120 mm	120.4 kg/m	32 bar	TFB45N60BG
500	5.97 m	9.3 mm	2.5 mm	532 mm	535 mm	200 mm	625 mm	125 mm	143 kg/m	30 bar	TFB50N60BG
600	5.97 m	10.9 mm	2.5 mm	635 mm	638.2 mm	209 mm	740 mm	135 mm	192.9 kg/m	30 bar	TFB60N60BG
700	6.9 m	10.8 mm	2.5 mm	738 mm	741.7 mm	250 mm	855 mm	158 mm	239.48 kg/m	27 bar	TFB70N70BG
800	6.9 m	11.7 mm	3 mm	842 mm	845.8 mm	261 mm	980 mm	150 mm	294.84 kg/m	25 bar	TFB80N70BG
900	6.9 m	12.6 mm	3 mm	945 mm	948.9 mm	280 mm	1087 mm	155 mm	319.26 kg/m	25 bar	TFB90N70BG
1000	6.9 m	13.5 mm	3 mm	1048 mm	1052 mm	279.5 mm	1191 mm	165 mm	413.47 kg/m	25 bar	TFC10N70BG

Legend:

- DN : nominal diameter
- Lu : laying length, in m
- e: thickness according to EN598 + A1 – August 2009, in mm
- e1: according to EN14626, in mm
- er: thickness of the cement mortar, in mm
- ØDE : external nominal diameter of the barrel according to EN598 + A1 – August 2009, in mm
- ØDI : internal nominal diameter of the socket, in mm
- P : nominal depth of the socket, in mm

- ØB : nominal diameter of the socket, in mm
- Mass : total mass per meter (including cement coating and socket), determined with the nominal thickness, in kg/m
- Reference : commercial reference Saint-Gobain PAM

Field of use:



- Separate sewer system and combined sewer system
- Application: gravity flow and rising main sewerage systems
- Type of effluent: domestic wastewater and rainwater
- Perfectly watertight
- For effluents between pH4 and pH12
- Extremely corrosive soils ; storage in warm countries is not recommended
- Resistivity of the soils: see drawing

Main characteristics:

- External coating ^{Bio}Zinalium: a layer of zinc-aluminium alloy enriched with copper Zn85Al15 (Cu), with surface density of 400 g/m² covered with a protective red (RAL 3011) layer AQUACOAT 80 µm (mini average), without VOC and without BPA polyethylene according to NF EN 14628-2006 (DN80 to 500: extrusion method by tubing – DN500 to 700: extrusion method by wrapping)
- Internal lining: aluminous cement mortar CALCOAT
- Socket coating: zinc rich paint 40 µm or zinc-aluminium 200 g/m² + red AQUACOAT 160 µm (mini average)
- Spigot coating: zinc-aluminium (Cu) 400 g/m² + red AQUACOAT 160 µm (mini average)
- Standard Gasket in Nitrile
- EN 598 / CE Marking
- Declaration of performances [DoP-INTEGRAL005EN](#)
- Designed in accordance with applicable regulations:
 - NF EN 476: general stipulations regarding components used in systems
 - NF EN 752: design of sewerage projects

- NF EN 1610: acceptance of structures

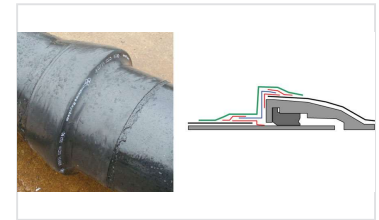
Linked products



Kit Universal Standard Ve
INTEGRAL Pipe + Universal
Standard Ve Joint



Lubricating paste -
CLASSIC, NATURAL,
INTEGRAL, and PLUVIAL
ranges



Assembly of the aluminium
sleeve on TT pipes

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