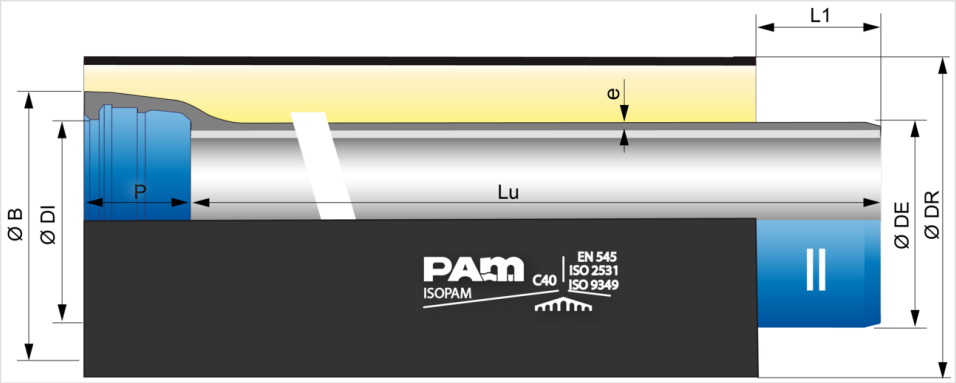
ISOPAM pipes DN100 to 600 with STANDARD socket (Equiped with Foam spacer and Collar)



DN	Lu (m)	Class	e (mm)	L1 (mm)	ØDE (mm)	ØDI (mm)	ØDR (mm)	P (mm)	ØB (mm)	Mass (kg/m)	References
100	6.00	C64	5.4	109	118	121.4	200	94.5	166.9	20.77	YSB10C60
125	6.00	C64	5.4	112	144	147.4	225	97.5	193.1	25.62	YSB12C60
150	6.00	C64	5.5	120	170	173.4	250	100.5	220.8	30.70	YSB15C60
200	6.00	C64	6.5	126	222	225.2	315	106.5	275.1	46.63	YSB20C60
250	6.00	C50	6.4	126	274	276.8	400	105.5	328.6	54.50	YSB25D60
300	6.00	C50	7.4	126	326	328.8	450	107.5	385.3	81.58	YSB30D60
350	6.00	C40	7.1	145	378	380.9	500	110.5	444.5	93.53	YSB35F60
400	6.00	C40	7.8	147	429	431.9	560	112.5	494.6	115.50	YSB40F60
450	6.00	C40	8.6	150	480	483	630	115.5	546.5	141.79	YSB45F60
500	6.00	C40	9.3	152	532	535	710	117.5	600.9	165.67	YSB50F60
600	6.00	C40	10.9	157	635	638.1	800	132.5	712	227.03	YSB60F60

Legend

- DN: nominal diameter
- Lu: laying length, in m
- Class: pressure class according to EN 545 and ISO 2531
- e: nominal thickness according to ISO 2531, in mm
- ØDE: external nominal diameter of the barrel according to EN 545 and ISO 2531, 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

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- 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:

- Pre-insulated pipes for frost protection

Main characteristics:

- External Bio Zinalium® coating consists of two layers:
  - a layer of zinc-aluminium 85/15 alloy, enriched with copper, with a minimum surface density of 400g/m², applied by spraying molten metal onto the surface of the iron, using an electric arc spray gun, from ZnAl (Cu) alloy wire
  - a protective layer of Aquacoat (semi-permeable), a water-based blue acrylic of average thickness 80 microns applied using a spray gun
- Internal lining: sulphate resisting blast furnace cement mortar
- Pipes equipped with thermal insulation (polyethylene sleeve, polyurethane foam, foam spacer, elastomer sleeve) to protect networks exposed to risks of freezing. Thermal conductivity coefficient of the coating: 0.034 W/m.°K. External temperature that the coating can withstand continuously: -40 °C. For lower temperatures, please contact us.
- Pressure class in conformity with Standard EN 545-2010 and ISO 2531-2009
- Standard joint in alimentary elastomer EPDM (ACS, KTW, WRAS,...)
- Vi anchoring without bolts

Protecting an above ground pipeline against frost

The thermal insulation coating delays the temperature drop of the water crossing the pipeline section exposed to the cold. It does not prevent it. The table below indicates the minimum time required for the water inside a completely full main, laid above ground, to reach 0 °C (no ice crystals) under the following conditions:

- zero flow rate (Q=0)
- initial water temperature = 4 °C, 10 °C
- external temperature = -5 °C, -10 °C, -20 °C
- wind speed 5 m/s to 20 m/s
- surface transmission coefficient between the external surface of the polyethylene sleeve and the ambient air = 23 W/m2.°K

To prevent the water from freezing, the flow rate Q must be chosen so that the time ΔT for the water to cross the preinsulated section is less than the freezing time ΔT at zero speed, indicated in the following table.

where: Q=flow rate (in m3/h), S=cross-section (in m2), L=length of the exposed section (in m), ΔT freezing=freezing time in hours

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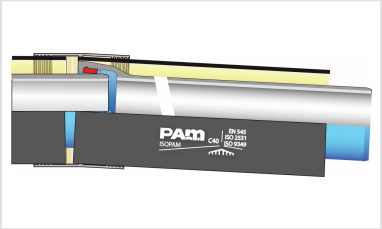
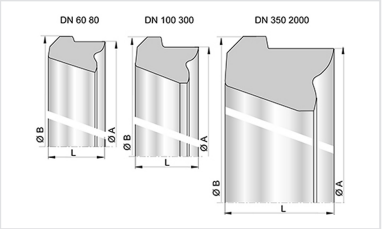
Water temperature	External temperature	Minimum freezing time (ΔTfreezing) at flow rate Q = 0									
		DN100	DN125	DN150	DN200	DN250	DN300	DN350	DN400	DN500	DN600
°C	°C	h	h	h	h	h	h	h	h	h	h
4	-5	12	16	20	33	56	68	78	96	128	181
	-10	7	9	11	18	32	39	44	55	73	104
	-20	3	5	6	10	17	21	24	29	39	56
10	-5	23	30	38	61	105	127	145	180	240	338
	-10	14	19	24	38	66	80	92	113	151	213
	-20	8	11	14	22	38	47	53	66	88	125

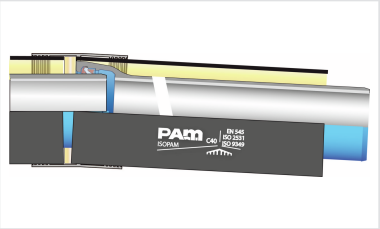
Linked products



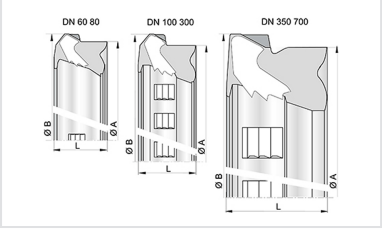
Kit Standard Pipe ISOPAM + Standard Gasket



Standard gasket for Pipes and Fittings DN60-2000



Kit Standard Pipe ISOPAM + Standard Vi Gasket



STD Vi gasket for Pipes and Fittings DN60-700

Lubricating paste - BLUPAM

Lubricating paste - NATURAL, INTEGRAL, and PLUVIAL ranges

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