LESSO

UPVC POTABLE WATER SUPPLY PIPES AND FITTINGS

LESSO Philippines Trading Inc.

Product introduction

As a mature water supply pipe, UPVC water supply pipe offers robust acid resistance, alkali resistance, and corrosion resistance. It also provides excellent pressure resistance, high strength, lightweight construction, affordability, minimal fluid resistance, absence of secondary pollution, and compliance with sanitary requirements. Its outstanding performance extends to convenient construction and operation. Vigorously promoting UPVC water supply pipes adheres to the guidelines set forth by the Ministry of Construction and the State Economic and Trade Commission for the development of chemical building materials. It also aligns with the growing demand for improving people's living standards.

The UPVC water supply pipe system has been utilized for decades in both Europe and the United States, establishing itself as the most prevalent and widely adopted water supply system.

Lesso UPVC water supply pipes adhere to the Philippine National Standard PNS 65:1993. The products meet the requirements of the PNS 65:1993 standard and comply with the relevant health and safety evaluation regulations of the Ministry of Health. Lesso UPVC water supply pipe fittings conform to the ISO 1452-3:2009 standard Based on the premise that water is fundamental to health, Lesso UPVC water supply pipes can replace traditional water supply pipeline systems, effectively eliminating secondary pollution. This ensures that people have access to clean and healthy drinking water.

Lesso UPVC water supply pipes undergo rigorous testing to ensure they meet various health standards, making them a genuinely healthy and environmentally friendly new product.

Product features

Lightweight design for easy handling and loading

- The product has low density, making it convenient for handling, loading and construction.

Excellent corrosion resistance

- The product has excellent acid, alkali and corrosion resistance.

Low fluid resistance

- The inner wall of the pipe is smooth, resulting in low fluid resistance. This effectively enhances the hydraulic conditions within the pipe network and reduces the system's operating costs.

Does not affect water quality

- The dissolution test demonstrates that the product does not impact water quality, making it suitable for widespread application.

Easy construction

- Pipe connections are quick and easy to construct, resulting in low construction costs.

High mechanical strength

- The pipe has excellent pressure resistance, impact resistance and tensile strength.

Low cost

- The product's low price, ease of transportation and building, and extended service life all contribute to a low total cost.

Pipe characteristics

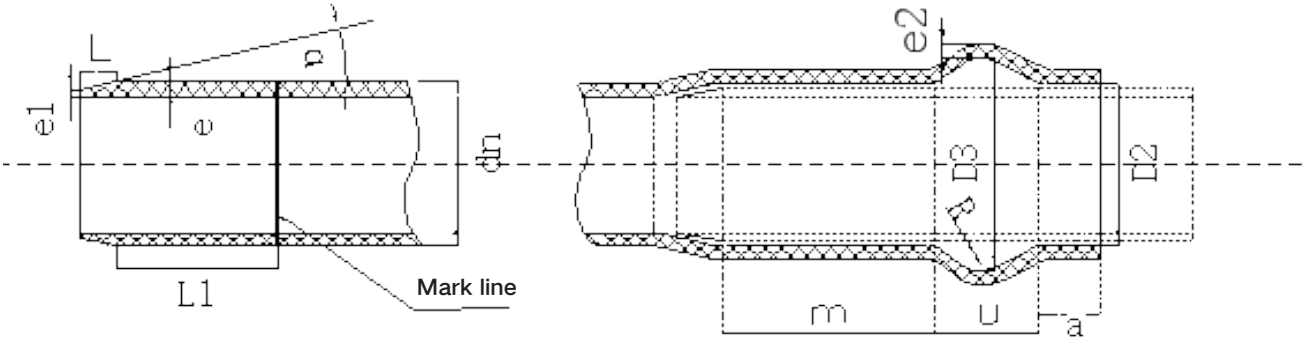
Characteristic	Requirement
Vicat softening temperature/℃	⩾76
Longitudinal reversion/%	<5
Water absorption/(g/m³)	⩽40
Resistance to acetone	No delamination or disintegtation
Resistant to sulfuric acid	The mass of the specimen shall not increase by more than 0.316g nor decrease by more than 0.013g
Effect of materials on water quality	Meeting the standards of 5.3.3 in PNS 65:1993.
Flattening	No splitting,cracking and breaking
Resistance to external blows	TIR⩽10%
Burst pressure	No failure
Long term pressure	No failure
Short term pressure	No failure
Joint tightness	Applicable to pipes with sizes between 16mm and 63mm

Pipe classification and dimensions

Note: • The pipe length is 3m, or it can be determined according to specific order requirements.
• He color is blue, or it can be determined according to specific order requirements.

Nominal outside diameter (mm)	Inch size	Nominal pressure 0.86MPa	Nominal pressure 1.03MPa	Nominal pressure 1.25MPa	Nominal pressure 1.6MPa
	Wall thickness (mm)				
20	1/2"	/	1.8	1.8	1.8
25	3/4"	/	1.9	1.9	2.2
32	1"	/	2.0	2.2	2.8
40	1-1/4"	/	2.3	2.8	3.4
50	1-1/2"	/	2.9	3.5	4.3
63	2"	3.0	3.6	4.3	5.4

Expand pipe dimensions



Outside Diameter	1.0/1.25MPa				PN 1.0MPa		PN 1.25MPa		L1
	D2	D3	m	u	a	L	a	L	
63	65^{+1}_{-1}	80.0^{+1}_{-1}	64^{+5}_{0}	23.7^{+1}_{-1}	17^{+2}_{-2}	6.8^{+2}_{0}	17^{+2}_{-2}	8.6^{+2}_{0}	95^{+1}_{-1}
75	77^{+1}_{-1}	93.9^{+1}_{-1}	67^{+5}_{0}	26.8^{+1}_{-1}	18^{+2}_{-2}	8.1^{+2}_{0}	18^{+2}_{-2}	10.2^{+3}_{0}	102^{+1}_{-1}
90	92^{+1}_{-1}	110.7^{+1}_{-1}	70^{+5}_{0}	28.9^{+1}_{-1}	20^{+3}_{-3}	9.7^{+2}_{0}	20^{+3}_{-3}	12.2^{+3}_{0}	109^{+1}_{-1}
110	112^{+1}_{-1}	132.5^{+1}_{-1}	75^{+5}_{0}	30.9^{+1}_{-1}	24^{+3}_{-3}	9.5^{+2}_{0}	24^{+3}_{-3}	12.0^{+3}_{0}	120^{+1}_{-1}
160	163^{+1}_{-1}	186.0^{+1}_{-1}	86^{+5}_{0}	36.0^{+1}_{-1}	28^{+3}_{-3}	14.0^{+3}_{0}	28^{+3}_{-3}	17.4^{+3}_{0}	140^{+1}_{-1}
225	228^{+1}_{-1}	254.5^{+1}_{-1}	100^{+5}_{0}	40.0^{+1}_{-1}	36^{+5}_{-5}	19.4^{+3}_{0}	36^{+5}_{-5}	24.4^{+3}_{0}	165^{+1}_{-1}
280	$283^{+1.5}_{-1.5}$	$315.0^{+1.5}_{-1.5}$	112^{+5}_{0}	47.6^{+1}_{-1}	42^{+5}_{-5}	24.1^{+3}_{0}	42^{+5}_{-5}	30.2^{+4}_{0}	192^{+1}_{-1}

Outside Diameter (mm)	Outside Diameter Tolerance (mm)	Socket Length (M+u+a (mm))	Depth of Engagement	Effective Length (mm)	Thickness (mm)			
					Pn 1.0MPa		Pn 1.25MPa	
63	$^{+0.28}_{+0.10}$	104	40	6000	3.0	$^{+0.4}_{0}$	3.8	$^{+0.4}_{0}$
75	$^{+0.28}_{+0.10}$	111	44	6000	3.6	$^{+0.4}_{0}$	4.5	$^{+0.4}_{0}$
90	$^{+0.28}_{+0.10}$	118	48	6000	4.3	$^{+0.4}_{0}$	5.4	$^{+0.5}_{0}$
110	$^{+0.32}_{+0.10}$	129	54	6000	4.2	$^{+0.4}_{0}$	5.3	$^{+0.5}_{0}$
160	$^{+0.40}_{+0.15}$	150	64	6000	6.2	$^{+0.5}_{0}$	7.7	$^{+0.6}_{0}$
225	$^{+0.60}_{+0.15}$	176	76	6000	8.6	$^{+0.7}_{0}$	10.8	$^{+0.9}_{0}$
280	$^{+0.60}_{+0.15}$	201	89	6000	10.7	$^{+0.9}_{0}$	13.4	$^{+1.1}_{0}$

Pipe fitting series

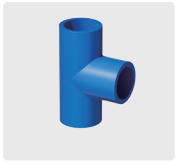
Note:
- Pipe fittings are injection-moulded fittings,for solvent cementing. The pipe fittings are blue in color.
- Pipe fitting performance indicators: Refer to ISO 1452-3:2009

Characteristic	Requirement
Density	1350~1460kg/m³
Vicat softening temperature	⩾74℃
Effects of heating	No blisters or signs of weld-line splitting
Internal pressure (dn⩽90)	No break during the test period
Crushing test	No shatter when undergo a deformation of 20%

SIZE: DN20~DN63

- Socket coupling

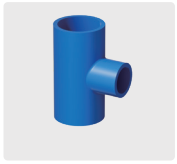
- Reducer



- 90 degree tee

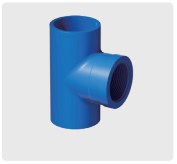
- 90 degree elbow

- Elbow reducer

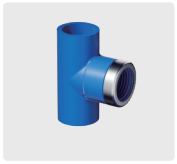


- Tee reducer

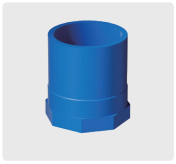
- Socket end cap



- Threaded tee

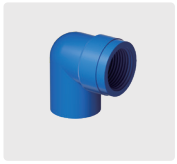


- Threaded tee(with stainless steel hoop)



- Female adapter

- Female adapter(with stainless steel hoop)



- Threaded elbow

- Male adapter

Pipe connection (Bonding procedure)

Select a fine saw, cutting knife, or specialized PVC-U pipe cutting tool to cut the pipe evenly and vertically to the required size.

Use a flat file to remove the burr and burr edge of the fracture, and create a chamfer at the end. Prior to applying adhesive, ensure to wipe off any residual debris, dust, water, and oil from the bonding surface of both the socket and spigot using a dry cloth.

Use a brush to evenly and swiftly apply the special adhesive onto the bonding surface of both the socket and spigot.

Align the center of the pipe and pipe fitting, then swiftly insert the spigot into the socket and rotate it by 1/4 circle to evenly distribute and cure the adhesive.

Wipe off any excess adhesive from the surface of the pipe using a cloth, and ensure to test the water pressure only after allowing the connection to set for 24 hours.

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