

2WW L250

2WW – double wall corrugated pipes electric and telecom

Buried cable protection conduits – light duty

CE



The 2WW L250 double-walled pipe (smooth inside and corrugated outside) is made of polyethylene (PE). The wall construction makes easy the installation of cables and provides good resistance to compression (≥ 250 N) and impact (light use (Series L) with IK 07 to IK09), standing out for its high flexibility.

Supplied in coils with 50 m length (40 m for $\varnothing 200$) or in straight bars with 6 m length including a PE sleeve (double socket) in one side.

\varnothing_{ext} (mm)	\varnothing_{int} medio (mm)	Length		Bend radius (mm)	Technical requirements according to EN 61386-24 for L250 class
		Coil (m)	Straight (m)		
40 +0.8	32	50.0 \pm 0.5	-	320	Compression test (5% \varnothing i): ≥ 250 N Ring stiffness (3% \varnothing i) EN ISO 9969 \varnothing 40 to 125: ≥ 4 kN/m ² (SN4) \varnothing 160 to 200: ≥ 2 kN/m ² (SN2)
50 +1.0	42	50.0 \pm 0.5	-	300	
63 +1.2	53	50.0 \pm 0.5	-	378	Impact test (3kg, -5°C): Light use (L series) \varnothing 40 and 50: 100mm, 3J, IK 07 \varnothing 63, 75 and 90: 200mm, 6J, IK 08 \varnothing 110 and 125: 400mm, 12J, IK 09 \varnothing 160 and 200, 500mm, 15J, IK 09
75 +1.4	62	50.0 \pm 0.5	-	450	
90 +1.7	75	50.0 \pm 0.5	-	540	
110 +2.0	95	50.0 \pm 0.5	6.0 \pm 0.06	660	Bending test: 90° (only for coils) Degree of protection provided by enclosure (EN 60529): IP 43
125 +2.3	108	50.0 \pm 0.5	6.0 \pm 0.06	750	
160 +2.9	138	50.0 \pm 0.5	6.0 \pm 0.06	750	
200 +3.6	171	40.0 \pm 0.4	-	750	

Note 1: The ring stiffness class SN4 is equivalent to the ring stiffness of PVC-U and HDPE pipes of PN6 class and the ring stiffness SN2 is equivalent to ring stiffness of PVC-U and HDPE pipes of PN4 class.

Note 2: Pipes coils are supplied with PET pull-wire.

Material: Polyethylene (PE).

Visual aspect: Internal and external surface free of bubbles, cracks and cavities. The internal surface must allow the cables to slide freely.

Colour: External in green (\approx RAL 6018) for telecommunications purposes or in red (\approx RAL 3020) for power cables. Interior in natural (translucent white).



2WW PE pipe L250 green in coils.

Marking: Pipes are marked every 1,5 to 3,0 m according to the example:

IBOTEC 2WW EN 61386-24 \varnothing_{xx} L250 CE DATE + O.P. (Ibotec traceability code)

For coils $\varnothing 160$ and $\varnothing 200$:

AENOR IBOTEC 2WW EN 61386-24 \varnothing_{xx} L250 CE DATE + O.P. (Ibotec traceability code).

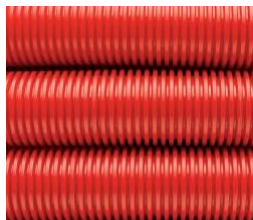
Coupling: Each pipe includes a black PE sleeve coupler.



Field of application



It can be applied to underground ducts for electrical or telecommunication and optical fiber cables, outside buildings with or without traffic loads, in conformity with all requirements of technical regulations for low voltage electrical installations (RTIEBT Portaria 949-A/2006) and European standards EN 61386-1 and EN 61386-24, which are harmonized for **CE** marking under the Directive "2014/35/EU" relating to electrical equipment designed for use within certain voltage limits



They also comply with the technical requirements of the new Portuguese ITUR regulation (ICP-ANACOM 2nd edition Sep-2014) for telecommunications infrastructures in subdivisions, urbanizations and building complexes.

That's for the main pipeline network and the distribution matrix.

Remarks for installation

It allows piping bending without the need of fittings. Cutting pipe can be done easily with a knife or scissor, eliminating any burrs.

The use of plugs can prevent the entrance of solid objects or small animals, before pipe be in use.

The use of spacer combs ensures the correct positioning of the pipes in the same section of the pipe design and therefore the necessary gap of 2/3 cm between pipes.

2WW pipes L250 class can be installed buried between 0,8 to 6 m (above the pipe crown), in concrete formations or in sand and rock powder formations(not allowed in ITUR regulation).

For concrete formations, special attention should be paid to:

- the need or not for shoring;
- prepare the support bed with 2 cm of beaten sand or gravel;
- laying and covering the pipes with at least 2 cm of C20/25 concrete duly vibrated using lateral formwork;
- the choice of filling materials, the shape of the filling layer of 15 to 30 cm applied after the concrete has dried and the degree of compaction of each layer.

For installation with rock dust wrapped formations without traffic loads, special attention should be paid to:

- the need or not for shoring;
- prepare the support bed with 5 to 10 cm of sand or rock dust and wrap the tubes;
- overlapping layers of pipes interspersed with a layer of sand or rock dust with 3 cm;
- the choice of filling materials, the shape of the filling layer from 15 to 30 cm and the degree of compaction of each layer.



The information and data assume is accurate and reliable.

The characteristics can be improved as a result of technological advances and improvements.

Our Quality Department is at your disposal for any clarification s.



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