

PPECOFORTE

PP-HM system for sewers

MADE IN ITALY

valsir®

QUALITY FOR PLUMBING



PPECOFORTE

High resistance pipes with triple layer wall

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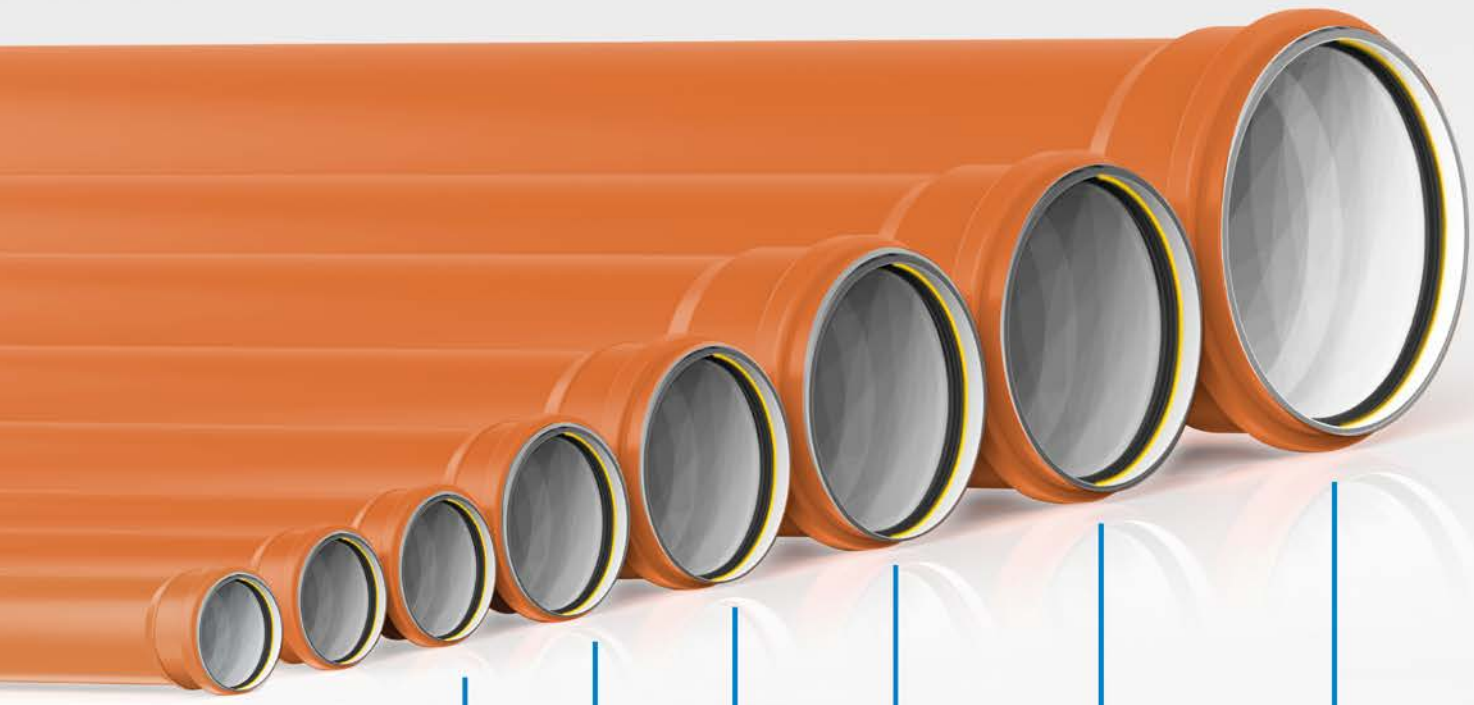
The PPEcoforte® system complies with European standard UNI EN 13476-2:2008 and provides a wide range of accessories to achieve an efficient sewer system.

It is a high resistance triple layer wall piping system in high modulus polypropylene (PP-HM) for non-pressure underground sewage applications; external wall are RAL 8023, internal RAL 9003. The fittings are molded and thermoformed in PP-MD RAL 8023.

The system is suitable for the conveyance of civil, industrial and agricultural wastewater (white, black or mixed waters). The use of PP-HM allows to realize a high performance system in terms of resistance to loads, bending, resistance to internal and external abrasion, temperatures and a large number of chemical reagents.



MADE IN ITALY



Ø110	Ø125	Ø160	Ø200	Ø250	Ø315	Ø400	Ø500
SN4	SN4	SN4	SN4	SN4	SN4	-	-
	SN8	SN8	SN8	SN8	SN8	SN8	SN8
		SN12	SN12	SN12	SN12	SN12	SN12
			SN16	SN16	SN16	SN16	SN16

THE PPECOFORTE® SYSTEM

The **long life of the system (over 60 years)** allows reduced maintenance service and costs. The system resists to a high number of chemical reagents without corrosion problems.

The wide range of **diameters from Ø 100 to Ø 500** allows use in all type of construction, residential, road and industrial. The reduced thickness of the wall increases the hydraulic capacity on the pipe. The available lengths excluding the socket are **1, 3 and 6 meters**.

Thanks to its composition, pipes are **light weight to facilitate handling and installation**.

The system is **100% recyclable** and at the end- life it is grinded into granules and reused for others products.

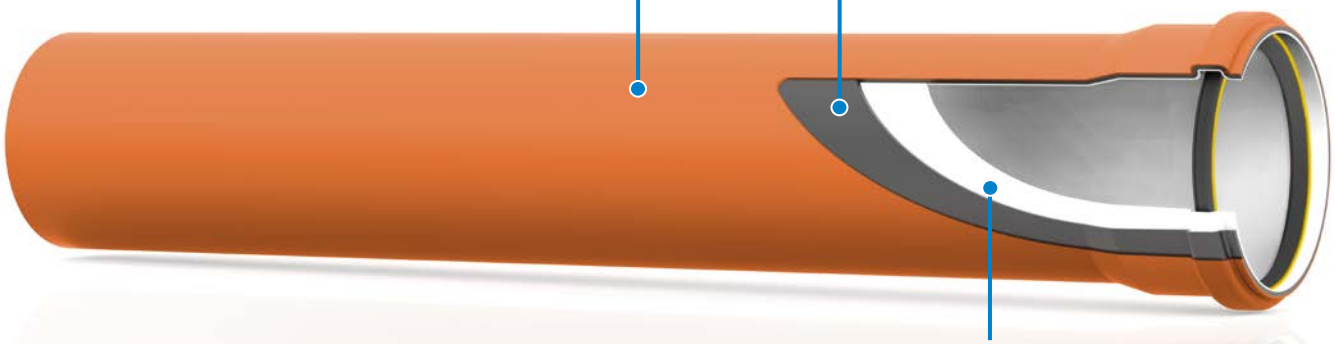
Stiffness classes SN4 - SN8 - SN12 - SN16 allows the pipe to resist to strong pressure caused by heavy vehicle traffic and soil pressure. The pipes have high impact resistance that prevents possible breakage during installation. In particular installation conditions no additional protections are required.

Socket coupling system with bi-component (EPDM/TPV- and PP) **blocked seals** to garantee safer insertion and stability during installation. Perfect seal is guaranteed even in the presence of pre-existing (waste systems).

The system mechanical resistance even at temperatures **up to -10°C** and to discontinuous flow rate with temperatures **up to +95°C**. Allows installation, handling and storage in various climatic conditions.

External layer
made of 100% pure PP-HM, with anti UV additives in order to keep intact the conformation of the pipe and avoid the color fading.
Features exceptional resistance against abrasion and against chemical substances in the soil.
The external layer color is RAL 8023.

Load bearing layer (intermediate)
it is made of 100% pure PP-HM, according to the UNI EN 13476-2: 2008 standard. High mechanical resistance during installation thanks to a broad temperature range of use (from -10°C to + 95°C). Durable and elastic structure that ensures the absorption of any ground movements.



Internal layer
it is in white RAL 9003 color, made of 100% pure PP-HM, internal surface with reduced roughness and high hydraulic flow; resistant to a high number of chemical agents and high temperatures (up to 95°C non-continuous) particularly useful in the case of industrial applications. High resistance to abrasion given by the presence of sand or micro debris present in the wastewater.

THE RANGE OF FITTINGS

PPEcoforte® fittings are made of compact PP-MD with mineral addition. Sizes, dimensions are according to **UNI EN 13476-2:2008** with class of resistance SN8.

The fittings up to diameter 250 mm are injection molded, while dimeters up to 500 mm are obtained by welding compact monolayer pipe.

The range is completed by the elements all necessary to install a complete and efficient sewer system; fittings are supplied with bi-component blocked seals.



THE JOINTING SYSTEM

The pipes and fittings are connected using push-fit couplings with elastomeric triple-lip bi-component seals (TPV-E/EPDM and PP), conform to UNI EN 1277:2005, guaranteeing the seal up to a pressure of 0.5 bar.

The jointing system with blocked seal allows easier insertion and guarantees stability of the seal during the connection of large diameter pipes.

The jointing system absorbs movements in the ground.

Single-lip NBR seals are available upon request, providing excellent resistance to hydrocarbons and mineral oils.





Elastomeric seal

- In compliance with UNI EN 681:2005
- CE marking according to standards and regulations
- Perfect hydraulic seal once fitted in compliance with UNI EN 1277 up to a pressure of 0.5 bar
- Capacity of absorption of movements or vibration in the ground also following installation (caused by static, hydrostatic and dynamic load)



When two pipes are pushed together the sealing element is designed to deform, creating a seal by acting both on the joint and on the socket.

ELEMENTS FOR A PERFECT INSTALLATION

Single plate non-return valve

The non-return valve avoids the risk of flooding in case of overload problems into the sewer system. The valve is installed outside the house along with a trap, placed inside a gully for easy inspection.

- CE marking according to UNI EN 13564-1:2004 and UNI EN 13564-2:2005.
- Made of PP for a long service life and to resist to high temperatures and chemical reagents.
- Plate made of stainless steel to avoid the risk of damaging.
- Stainless steel locking bolts to resist to corrosion.
- Easy locking system.
- Junction system with elastomeric gasket.
- Diameter from Ø 110 to Ø 200 mm.



Trap

The trap should be installed together with a non-return valve placed inside a gully.

- Realized according to UNI EN 1256-5:2017.
- Double cap for easier inspection and cleaning in case of sediment.
- Range available from Ø 110 to Ø 315 mm.



Modular telescopic monoblock gullies

The gullies allow inspection of sewer pipes in order to collect samples or to clean when necessary.

- Easy handling thanks to the low weight.
- Made in PE with rotomolding technology.
- Diameter 315, 400 and 500 mm.
- Supplied with cast iron manhole class A15 or B125.
- Available with one or three 45° inlets. The outlet has different possibilities of diameter (160/200), according to necessity.
- Adjustable height from 800 mm to 1800 mm.



Inspection chamber

The inspection chamber allows the access of qualified personnel for inspection and maintenance.

- Made in PE with rotomolding technology.
- Stronger reinforced thicknesses for wider sizes.
- Easy handling and installation thanks to the low weight.
- Fast installation without particular jointing elements.
- Adjustable height from 830 mm to 5080 mm.
- Available with one or three 45° inlets. The outlet has different possibilities of diameter (from 160 mm to 500 mm) according to installation requirements.
- Available extension with gasket to adapt to ground level.



CUSTOMER SERVICE

Technical support

Valsir provides complete support during design and on site, thanks to a high-level technical department that consists of a team of engineers with international experience that are capable of providing solutions to all installation needs.





Valsir Academy

Valsir has an important training facility - **Valsir Academy** - dedicated to clients, distributors, plumbers and planners that provides perfectly equipped courses, both theoretical and practical on the use and the design of plumbing and heating systems. Courses are provided both inside the training facility and on customers' premises.

QUALITY AND ENVIRONMENT

Quality



The constant commitment of Valsir in the production of quality products is attested by over **300 product approvals** obtained throughout the world by the most stringent certification bodies (data updated to 01/04/2024), by a Management System of the Quality (QMS) certified in compliance with the **UNI EN ISO 9001:2015** standard and the Energy Management System (SGE) certified according to the international standard **UNI EN ISO 50001:2018**.
Valsir S.p.A. has further demonstrated its commitment to the environment by obtaining certification **ISO 14001:2015** on the Vestone production site.
Since 2019 an innovative and modern plant has also been built that, integrated with the already installed photovoltaic park, will be able to produce over 30% of the electricity needed for all Valsir plants. This is a Trigenerator powered by methane gas capable of producing electricity, steam and cooling energy.

Sustainability

Efficient processes and reliable products are no longer the only parameters used to perform an assessment of the quality of a company's conduct: the capacity of the company and its management to design and implement production process that are sustainable from an environmental point of view is of equal importance.

Valsir has started a project of Corporate Social Responsibility and has published its Sustainability Report that gathers facts and figures relating to the daily commitment of Valsir in terms of social, economic and environmental responsibility.



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