PP-HM system for sewers
High resistance pipes with triple layer wall

High resistance pipes with triple layer wall in high modulus polypropylene (PP-HM) for non-pressure underground sewage applications, internal walls are RAL 8023, internal are RAL 9003.

Molded and thermoformed fittings in compact PP-HM, brick colour RAL 8023. The use of PP-HM allows the production of a high performance system in terms of resistance to loads, buckling and internal and external abrasion.


The system provides a wide range of accessories to achieve an efficient sewer system.
Ø110  Ø125  Ø160  Ø200  Ø250  Ø315  Ø400  Ø500
SN4   SN4   SN4   SN4   SN4   SN4   SN8   SN8
SN8   SN8   SN8   SN8   SN8   SN8   SN8   SN8
SN12  SN12  SN12  SN12  SN12  SN12  SN12  SN12
SN16  SN16  SN16  SN16  SN16  SN16  SN16  SN16
THE PP ECOFORTE SYSTEM

External layer
Made of PP-HM with additives, minimizes heat absorption and the action of atmospheric agents on the pipe, giving the product an excellent longitudinal stability and superior protection against superficial damage. The external layer is RAL 8023.

Internal layer
The internal layer, made of PP-HM, 100% pure, has a very high abrasion resistance and an excellent resistance to chemical agents and a minimum roughness coefficient to guarantee an excellent flow. The internal layer is RAL 9003.

Load bearing layer
Made of high quality PP-HM with additives, reinforced with minerals in the intermediate layer that give the pipe high mechanical resistance, hardness and stiffness.

Long service life of the entire system composed of pipes and fittings.

Socket coupling system with blocked Forsheda Din-Lock® for the entire series.

The system’s mechanical resistance even at low temperatures (resilience) -10°C +95°C intermittent, allows handling of pipes and fittings without breakages, as prescribed by European Standard EN 1411.

Breakage and crushing resistance due to dynamic stress. Flexibility that allows the pipe to withstand the intense pressure caused by burial in the ground and the passage of vehicles.

The wide range of diameters (from 110 to 500 mm) allows use in all types of constructions: residential, road and industrial. Ring stiffness classes SN4, SN8, SN12, and SN16.
THE RANGE OF FITTINGS

The PP Ecoforte sewer fittings for non-pressure underground pipes are designed to convey:
• civil and industrial waste water (white, black and mixed water),
• industrial and agricultural waste water.

The Valsir fittings are produced with compact PP-HM with the addition of mineral loads.

Measurements and geometrical data of the products are guaranteed according to UNI EN 13476-2:2008. The fittings are produced by injection molding with the exception of the larger diameters which are produced using thermoforming.
THE JOINTING SYSTEM

The pipes and fittings are connected using push-fit couplings using elastomeric triple-lip bi-component seals (TPV-E and PP) Forsheda 582 Din-Lock®.

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

Elastomeric seal
Forsheda 582 Din-Lock®

- Stability of the seal during pipe coupling operations.
- Facilitated insertion thanks to the design and pre-lubrication of the seal.
- 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 and dual plate non-return valve

Climate change and the increasing urbanization of land can cause overload problems in sewer networks with the consequent risk of flooding. To prevent such risks it is necessary to install non-return single or dual plate valves. The valve is installed outside the house, along with a trap, and positioned inside a gully for easy inspection. It is made of a resistant ABS and is available in diameters 110 to 200 mm.

Trap

The range of traps with dual inspection cap is available in diameters from 110 to 500 mm.

The trap should be installed together with a non-return valve positioned inside a gully. The dual cap allows for simple access and cleaning.
Modular telescopic monoblock gullies

- Monoblock with 315, 400 and 500 mm diameters and maximum height of 1800 mm.
- Modular with base, pipe and terminal with 400 mm diameter and variable height up to a maximum of 2500 mm.

The gullies allow inspection of the sewer pipes in order to collect samples or to clean when necessary. The gullies in this range do not allow access to persons.

Inspection chamber

The inspection chambers have a diameter of 1100 mm and an inlet from 640 mm allowing the access of qualified persons for inspection. The chamber contains steps as established by the standards to facilitate access.

They are made of HDPE and are monoblock and ensure a rapid and safe installation, as well as simple handling during transport.

Available in different heights, up to 5080 mm, they allow the inlet and outlet of pipes of different diameters. The larger diameter chambers are triple layer to guarantee greater resistance to pressure created by the surrounding earth.
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, theoretical and practical courses 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 ongoing commitment of Valsir to the creation of high quality products is demonstrated by over 190 product approvals obtained around the world from the most strict certification bodies (figure updated on 01/10/2017), by the Quality Management System that is certified in compliance with UNI EN ISO 9001:2008 and the Energy Management System that is certified in compliance with International Standard UNI EN ISO 50001:2011.

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 1st Sustainability Report that gathers facts and figures relating to the daily commitment of Valsir in terms of social, economic and environmental responsibility.

For more information, download here the 1st Sustainability Report.

Download valsir.it/u/sostenibilita-en