PVC system for sewers
Compact PVC-U system for underground gravity sewers

Valsir PVC Basicline is composed of pipes, fittings and accessories for non-pressure sewer systems, made of PVC-U, colour RAL 8023. The pipes (SN4 and SN8) are available in the compact version, in compliance with UNI EN 1401.

The pipes are joined by socket with an elastomeric BL type ring seal or, on request, with a blocked Forsheda 582 Din-Lock® type seal. The pipes are available in 1, 3 and 6-meter lengths in diameters from 110 to 500 mm. PVC Basicline can be used for drainage of non-pressure waste water, both civil (white, black and grey) and industrial, within the resistance limits to chemical elements.
ADVANTAGES

The system has a high resistance to the corrosive action of the subsoil and waste water, even in the presence of acid and alkaline solutions, gas, mineral and organic substances of various nature dissolved in the waste water, including the main classes of hydrocarbons.

The particularly smooth internal surface limits pressure loss and sediments. It also guarantees an excellent resistance in presence of algae and bacteria and does not offer footholds to the sedimentation of micro particles, mould, fungi and limescale formation.

Coupling system with socket and elastomeric triple-lip seal made of EPDM in compliance with UNI EN 681/1 WC, or on request with blocking, anti-loosening Forsheda 582 Din-Lock® type seal, especially suitable in presence of large diameters.

Wide range of diameters (from 110 to 500 mm) that allows use in all types of applications: residential, road and industrial.

High mechanical resistance even at low temperatures that allows safe handling in all conditions without the risk of breakages.

The pipe/fitting system guarantees a constant hydraulic seal over time, even in case of deformations caused by ground settling and/or transit of very heavy loads, hydraulic stress and pressure caused by exceptional operating loads and external infiltrations.

Especially light system as compared with other traditional products in use; easy handling on site and greater safety during installation of the product are therefore guaranteed.
THE RANGE OF FITTINGS

The Valsir PVC Basicline fittings are produced with compact PVC with the addition of mineral loads as established by the standard (PVC minimum 85% of the total mix).

The complete range of PVC Basicline fittings for sewer systems meets all market requirements in terms of sizes and type:

- Civil and industrial waste water (white, black and mixed water).
- Discharges from industrial and agricultural activities and waste water in general.

Measurements and geometrical data of the products comply with UNI EN 1401.

Most of the fittings are manufactured using moulding techniques, whereas the largest diameters are thermoformed.

The Valsir fittings are marked and certified by Italian and foreign institutes.
The pipes and fittings are connected using push-fit couplings with two types of seal:

- Standard: elastomeric single-lip pre-fitted seal (SBR), BL type (standard UNI EN 681).
- On request: elastomeric triple-lip bi-component seal (TPV-E and PP) Forsheda 582 Din-Lock® type.

The jointing system with blocked seal allows for an easier insertion and guarantees seal stability during the connection of large diameter pipes. Both coupling systems absorb movements of the ground.

**Elastomeric seal Forsheda 582 Din-Lock®**

- Stability of the seal during pipe coupling operations.
- Easier 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

Non-return single or dual plate 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 an 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.
Telescopic monoblock joinable manholes

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

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

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 to facilitate access, as established by the standards. They are made of HDPE and are monoblock, they 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 the pressure created by the surrounding earth.
Technical support

Valsir provides comprehensive support during design and on site, thanks to a highly professional technical office composed of a team of engineers with international experience, capable of meeting all system requirements.

Valsir Academy

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

Silvestro software

The design of floor and radiator heating systems, water supply as well as waste and drainage systems, is extremely easy and the issue of the project technical documents is rapid when using the Silvestro software program. Rapid, simple, unique, Silvestro has numerous strong points:

• rapid learning curve thanks to a simple and intuitive interface
• completely graphic background that facilitates input of the project details
• automatic drawing of the loops in the floor radiant systems
• automatic repositioning of the stack points on the plan view
• generation of calculation reports that are exportable in an .xls format
• import and export of files in .dwg format
• immediate update of software with a guided procedure
• creation of complete bill of materials from the project files

Valsir is BIM ready

Valsir has embraced the BIM philosophy, the modelling process that allows the improvement of planning, design, construction and the management of buildings, concurring with the transition of the industry toward the digital representation of buildings. “BIM oriented” planning offers extraordinary competitive advantages: greater efficiency and productivity, less errors, less downtime, lower costs, enhanced interoperability, maximum sharing of information, a more punctual and coherent supervision of the project. Valsir captures the essence of this system creating a series of Revit applications and models designed for simple and fast use.
QUALITY AND SUSTAINABILITY

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 01/01/2018), 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 processes that are sustainable from an environmental point of view is of equal importance.

Valsir has started a project of Corporate Social Responsibility and has created its 1st Sustainability Report that gathers data relating to the daily commitment of Valsir in terms of social, economic and environmental responsibility.

Download here the 1st Sustainability Report.