



## GRP Pipe systems

for Water, Sewage and Industrial Applications



**AMIA**TIT PIPE SYSTEMS

# Amiantit

## Group of Companies



The Amiantit Group is an internationally operating organization with a track record of growth-oriented success. It's mission is to provide customers throughout the world with pipe solutions for water, sewage, gas, oil and industrial applications as well as with pipe technologies, water management services and building materials of superior quality and value. The company has a convincing history of long-term growth and profitability and a

competitive position thanks to the experience and commitment of our staff and our performance. Therefore they look forward with confidence to achieving their vision of global leadership. Faced with the challenges of globalization, Amiantit has dramatically expanded its international presence in recent years. An important focus of its activities is the production of pipe solutions for various applications in a number of sectors. Based on its expertise, **Amiantit** offers optimized pipe systems in different materials.

Depending on each customer's requirements the company supplies:

- GRP (Glass-fibre Reinforced Polyester) pipe systems called **Flowtite**, **Swedepipe**, **Sarplast**, **Vectus** and **Amiren**,
- GRE (Glass-fibre Reinforced Epoxy) pipe systems called **Amipox**,
- Polymer Concrete Pipes called **Meyer Polycrrete**,
- Thermoplastic Pipe Systems made of uPVC/mPVC, called **Amiplas**,
- DIP (Ductile Iron Pipe) systems called **Sadip**,
- Reinforced concrete pipes,
- The company also offers water management and support with financing.

### **Flowtite** GRP Pipes

An Outstanding Range and Technology for Many Applications

Having started in the late sixties, Amiantit is now the leading supplier of GRP pipes worldwide. The pipes are manufactured using a continuous filament winding process. They are corrosion-free and have a proven resistance to acidic environments in water and sewage systems. They are lightweight, easy to handle and manufactured under high quality standards.

**Flowtite** fibreglass pipes and fittings are used in many applications. They can be found in the transmission of drinking water, in fire-fighting, sea and desalinated water, in power plants, in chemical and industrial wastes as well as in sewage applications and irrigation. The use of **Flowtite** pipe systems is virtually unlimited.

You find the products in siphon lines just as much as in sea-water outfalls, bridge dewatering, desalination projects and as protection lines for cables. If you have an interesting application, please do not hesitate to contact us.

The Amiantit Group manufactures **Flowtite** GRP pipes in many factories around the world. The facilities supply pipes and fittings in various designs, lengths and diameters, also specially customized to suit your application. **Flowtite** products are available directly from all **Amitech** manufacturing sites as well as from the APS sales offices worldwide. If you would like to receive further details, please contact us. Address details can be found on the reverse of this brochure.



# Product Details

## Diameters

**Flowtite** pipes are supplied in nominal diameters ranging from DN 100 until DN 4000 mm.

Our range of standard diameters in mm:
100 · 150 · 200 · 250 · 300 · 350 · 400
450 · 500 · 600 · 700 · 800 · 900 · 1000
1200 · 1400 · 1600 · 1800 · 2000 · 2400
2600 · 2800 · 3000

The locally manufactured range of standard diameters varies from one manufacturing facility to another. For detailed information, please do not hesitate to contact them. Bigger diameters up to 4000 mm are available on request.

## Stiffness

**Flowtite** pipe systems have the following specific initial stiffnesses defined as the minimum initial specific stiffness of a pipe ( $EI/D^3$ ) in  $N/m^2$ .

### Standard Stiffness Classes

Stiffness Class (SN)	Stiffness ( $N/m^2$ )
2500	2500
5000	5000
10000	10000

Other stiffness classes and custom-designed pipe systems with a stiffness tailored to the needs of a given project are available on request.



## Pressure

The **Flowtite** pipes are available in the pressure classes listed below:

Pressure Class (PN)	Pressure Rating (bar)
1 (gravity)	1 (gravity)
6	6
10	10
16	16
20	20
25	25
32	32

The companies also manufacture custom-designed pipes with pressures tailored to the needs of a project. As Amiantit feels committed to high quality standards, we ensure that pipes with PN greater than 1 are 100% pressure-tested for twice their nominal pressure.

## Lengths

The pipes are supplied in standard lengths of 6 and 12 metres. Customized lengths up to 18 metres are available on request. Diameters of less than 300 mm are available in standard lengths of 6 metres.

## Flow Velocity

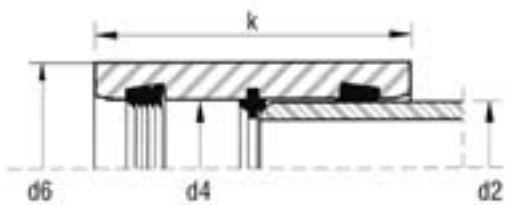
The smooth inner surface of the product allows a flow-velocity of 3.0 m/sec. Flow velocities up to 4.0 m/sec are also possible if the water is clean and contains no abrasive material.

**Joints**

**Flowtite** pipe sections are typically jointed using **Flowtite** GRP couplings. Pipes and couplings can be supplied separately or with the coupling mounted at one end.

The couplings have elastomere sealing gaskets (REKA system) with a stopper in the middle. The coupling depth is clearly marked at each end of a pipe.

Other possible jointing systems are laminated and flanged connections.



We also offer joints with axial retention systems such as locked and glued joints for use in other applications such as axial thrust.

*No more concrete thrust blocks!*

Using special pipes and fittings with locked connections for underground pressure pipe systems with axial thrust, makes the installation of concrete thrust blocks often unnecessary and your system more time and cost-effective.

**Water Hammer**

Water hammer – or pressure surge – is the sudden rise or fall in pressure, caused by an

abrupt change in fluid velocity within the pipe system. The most important factors which influence the pressure of water hammer in a pipe system are the change in velocity of the fluid, the rate of change of the velocity (valve closing time) and the compressibility of the fluid. The pressure of water hammer is approximately 50% less for **Flowtite** pipes compared with steel or ductile iron pipes under similar conditions.

**Flowtite Fittings and Accessories**

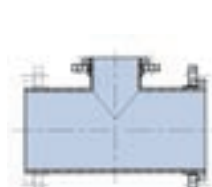
All pipeline systems require fittings. We offer a wide range of GRP fittings for water supply and wastewater systems such as bends, tees, branches, flanges, reducers, saddles, manholes and prefabricated spools.

Beside the standard range and dependent on the manufacturing site also machine made GRP fittings are available and cover a range from DN 100 to DN 800.

The regular segmented and laminated fittings are then used from DN 900 up to maximum production size.



Bend 15-90°



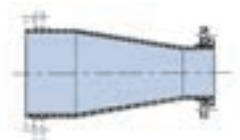
Tee 90°



Branch 60°



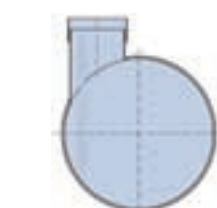
Loose flange



Reducer



Connection piece GRP-Clay GRP-PVC



Tangential manhole



Standard manhole

# Services

Throughout the world, specialists at our sales offices offer a wide range of products and product support. They will assist and advise on:

- Technical consultation with planning, installation and rehabilitation
- Local consultation and support for contractors
- Static and hydraulic calculation
- Solutions for special applications
- Training of installation staff
- Brochures and information material
- Technical drawings

## Quality

Consistently high quality standards are an important feature of the **Flowtite** pipe systems produced throughout the world. The manufacturing sites are continually checked by a third party and have official approval under ISO 9001 and other standards.

All plants have their own quality control departments, to ensure

- that all products are manufactured under the specified requirements,
- that the products and services continually improve in quality.

## Research and Development

As well as manufacturing pipe systems, the Group also develops and supplies the technology for all product lines.

The **Flowtite** Technology Centre ensures:

- the continuous development of products and processes,
- technical assistance, monitoring and exchange of experience between the different plants,
- the provision of new plants as well as production equipment and spare parts.

All Research & Development Departments consist of dedicated and highly qualified staff. Manufacturing sites and products are certified under the most widely acknowledged international standards and approval systems.



Engineering assistance for project design

## Environment

We recognize our responsibility for the environment, both locally and globally.

We therefore seek to handle environmental issues in such a way that all our operations protect the environment and the health and safety of our employees and of the general public. We are committed to developing and manufacturing products that are secure and reliable under proper use.

## Logistics

**Flowtite** Pipe Systems are supplied to countries throughout the world. Working closely with our customers, experienced specialists in the Logistics Departments develop the most efficient way for transportation by rail, road, sea and air. Cost savings can be obtained by nesting our pipes, which is possible due to low weight and easy handling.



Utmost care has been taken to ensure that all the contents of this brochure are accurate. However, Amiantit and its subsidiaries do not accept responsibility for any problems which may arise as a result of errors in this publication. Therefore customers should make inquiries into the potential product supplier and convince themselves of the suitability of any products supplied or manufactured by Amiantit and/or its subsidiaries before using them.



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