

iPLEX

Pipelines

FLOWTITE® GRP pipe systems

**Australian
manufactured
GRP pressure and
non-pressure
pipe and fittings**



FLOWTITE® GRP pipe systems

FLOWTITE® is a large bore glass reinforced polymer (GRP) pipe suitable for both pressure and non pressure applications. It is recognised for its strength, flexibility and corrosion resistant properties making it suitable for a wide range of applications including potable, raw and recycled water, sewage and drainage.

FLOWTITE® was first produced in Norway in 1971 and has become the leading “State-of-the-Art” technology in GRP pipe manufacture. The technology is now licenced on most continents with twenty two pipe factories world-wide. FLOWTITE® is manufactured under licence in Australia by RPC Pipe Systems in a purpose built facility in Adelaide.

Iplex Pipelines have an exclusive commercial arrangement with RPC Pipe Systems for the technical marketing, sales and distribution of FLOWTITE® pipes and fittings in Australia and New Zealand.

Manufacturing process

FLOWTITE® GRP pipes and fittings are manufactured in sizes ranging from DN300 to DN3000. The manufacturing process is continuous and automated which allows for rapid production rates and excellent quality control. The materials, glass fibre, resin and sand are applied to a revolving and advancing mandrel producing a highly engineered composite pipe with high strength, stiffness and light weight properties.

FLOWTITE® GRP pipes are manufactured in standard 3m, 6m and 12m lengths depending on the application with other lengths available on request. Each pipe length is then factory fitted with a FLOWTITE® rubber ring joint coupling.

The manufacturing process also allows flexibility in design with an alternative range of resins available for elevated temperature or chemically aggressive applications.

Iplex Pipelines Australia and New Zealand

Iplex Pipelines is an Australasian manufacturer and supplier of plastic pipes and fittings suitable for civil, plumbing, irrigation industrial and mining applications. As a leader in plastic pipe technology, Iplex Pipelines has continued to develop and introduce new and innovative products offering engineered solutions for demanding service and environmental applications. Iplex Pipelines has been a leader in GRP pipeline technology for the water and sewerage industry in Australia and New Zealand since 1985.

Flowtite is a registered mark of Flowtite Technology AS, a member of Amiantit group, and is used under exclusive licence by RPC Pipe Systems and distributed throughout Australia and New Zealand by Iplex Pipelines. No unauthorised use of the Flowtite mark is permitted.



FLOWTITE® applications

FLOWTITE® GRP pipe systems are suitable for:

- Water supply transmission and distribution mains
- Gravity and rising main sewers
- Irrigation
- Slip lining
- Culverts

FLOWTITE® pipe range

DN	Maximum OD (mm)	PN (Bar)	SN (N/m/m)
300	345	1 to 35	5000 – 20000
375	426	1 to 35	5000 – 20000
450	507	1 to 35	5000 – 20000
500	560	1 to 35	5000 – 20000
525	587	1 to 35	5000 – 20000
600	667	1 to 35	5000 – 20000
675	747	1 to 35	5000 – 20000
750	826	1 to 35	5000 – 20000
900	923	1 to 35	5000 – 20000
1000	1025	1 to 35	5000 – 20000
1100*	1127	1 to 35	5000 – 20000
1200	1229	1 to 35	5000 – 20000
1300*	1331	1 to 35	5000 – 20000
1400	1433	1 to 35	5000 – 20000
1500*	1535	1 to 35	5000 – 20000
1600	1637	1 to 35	5000 – 20000
1700*	1739	1 to 35	5000 – 20000
1800	1841	1 to 35	5000 – 20000
1900*	1943	1 to 25	5000 – 20000
2000	2045	1 to 25	5000 – 20000
2100*	2147	1 to 25	5000 – 20000
2200	2249	1 to 25	5000 – 20000
2300*	2351	1 to 25	5000 – 20000
2400	2453	1 to 25	5000 – 20000
2500	2555	1 to 20	5000 – 20000
2600	2657	1 to 20	5000 – 20000
2700	2759	1 to 20	5000 – 20000
2800	2861	1 to 20	5000 – 20000
2900	2963	1 to 20	5000 – 20000
3000	3065	1 to 20	5000 – 20000

Other diameters and pressure class combinations are available upon request.
*Subject to availability. Contact Iplex Pipelines for further information.

FLOWTITE® fittings range

A complete range of FLOWTITE® GRP fittings suitable for use with FLOWTITE® GRP pipe is available to suit the pipe and design application.

Typical fittings include:

- Bends 11.25°, 22.5°, 45°, 60°, 90° or as specified
- Tees Equal, reducing, scour, hydrant or air valve
- Junctions 45°
- Flanges Full faced or stub with backing rings
- Reducers
- Manhole connectors (with weep ring)
- End caps
- Other specialist fittings (as specified)

Standards and compliance

Product Standards

FLOWTITE® is manufactured to comply with Australian Standards

- AS 3571.1 "Plastic piping systems – Glass reinforced thermo setting plastics (GRP) systems based on unsaturated polyester (UP) resin – Pressure and non pressure **drainage and sewerage** (ISO 10467:2004 Mod)
- AS3571.2 "Plastic piping systems – Glass reinforced thermo setting plastics (GRP) systems based on unsaturated polyester (UP) resin – Pressure and non pressure **water supply** (ISO 10639:2004 Mod)
- AS/NZS4020 'Testing of products for use in contact with drinking water'

Structural design and installation

- AS/NZS 2566.1 'Buried flexible pipelines Part 1: Structural design'.
- AS/NZS 2566.2 'Buried flexible pipelines Part 2: Installation'.

W.S.A.A (Water Services Association of Australia) Appraisal

- FLOWTITE® pipes and fittings have been positively appraised by WSAA and the report PA12/11 can be downloaded from www.wsaa.asn.au.



PRODUCT ADVANTAGES

FLOWTITE® advantages

Features	Benefits
FLOWTITE® has high corrosion resistance and is immune to galvanic corrosion. Pipes and fittings are resistant in acidic or saline soils or soils of low resistivity	FLOWTITE® provides a longer service life in aggressive waters and soils containing chlorides, carbon dioxide, acids, hydrogen sulphide and sulphates
FLOWTITE® pipe dimensions up to DN750 are compatible with Australian Standard sizes as detailed in AS/NZS 3571	FLOWTITE® is interchangeable with ductile iron pipes, Series 2 PVC-U, PVC-M, and PVC-O pipes, and most existing AC pipeline installations
FLOWTITE® is electrically non conductive	Unaffected by stray (earth) or induced currents. Cathodic protection systems do not need to be considered for either FLOWTITE® pipes or surrounding structures
The FLOWTITE® GRP pipe coupling with REKA® rubber ring seals is a proven pipe joint system with almost eighty-years of proven performance and reliability	Allows all pipe lengths to be utilised. It has a low jointing effort with practical angular deflection for minor or major changes in pipe alignment (or in areas prone to mine subsidence). The same couplings can be used on cut pipes and fittings
An extensive range of standard FLOWTITE® GRP fittings is available together with custom-made fittings to suit individual requirements	Allows for standard and special layout configurations. Multiple fittings can be manufactured as single structures
FLOWTITE® pipes are manufactured with a reinforced resin liner and external scuff layer	Increased resistance to UV degradation Increased protection during handling and installation Provides good abrasion resistance
The smooth and large internal bore of FLOWTITE® pipe provides excellent hydraulic performance	Provides low friction losses, greater flow capacity and lower pump operating costs
FLOWTITE® pipes provide low water hammer surge celerity compared with other pipe materials	Assists the designer with water hammer pressure reduction measures
FLOWTITE® pipes are approximately ¼ the mass of ductile iron pipes and 1/10 the mass of concrete pipes for the same sizes	Provides cost and safety benefits in transport, handling and installation
Longer standard pipe lengths	Reduces the number of pipe joints on site and increases installation efficiency

Further references and information including a range of case studies can be found on the Iplex website www.iplex.com.au and RPC Pipe Systems website www.rpcpipesystems.com

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CONTACT DETAILS

For all enquiries and orders contact Iplex Pipelines

Civil Phone: **13 10 86**

Fax: **13 18 60**

www.iplex.com.au

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