

Standards Alert

Fibre Polymer Composite Specification Version 1.

This specification sets requirements for Fiber Polymer Composite (FPC) products when they are being used for:

- Wastewater maintenance holes and ventshafts
- Tunnel and shafts
- Structural components such as beams and gratings

FPC is an alternative to traditional materials like steel and concrete. It offers benefits including faster construction, reduced project and lifecycle cost, and lower embodied carbon.

Why has the specification been created?

Fiber Polymer Composite is an emerging material offering advantages over traditional steel and concrete – including faster installation, reduced costs and lower embodied carbon.

There are no Australian Standards for the design and manufacture of FPC non-pipe products. Proponents have relied inconsistently on international standards for their designs, and often lack sufficient evidence that their products are fit for purpose. Sydney Water has developed this specification to:

- Provide clear requirements for FPC design and construction
- Support consistent and confident decision-making
- Reduce delays in assessing FPC proposals
- Enable broader use of FPC where it delivers value

What are the key requirements?

The specification covers:

- Quality assurance and traceability
- Material properties and performance
- Fabrication and construction methods

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- Inspection, testing and documentation

This specification addresses known issues by:

- Mandating compliance with recognised international standards (British, European and American)
- Providing consistent framework for assessing FPC proposals
- Ensuring FPC products meet performance, durability and safety expectations

What are the key benefits and impacts?

The key benefits and impacts are:

- Encourages use of low carbon footprint alternatives to steel and concrete where it provides advantage in terms of project time, cost, and performance.
- Health and Safety benefits of using lighter weight products.
- Strengthening our supply chain resilience by diversifying our use of products and suppliers.
- Reduce the time and effort taken to assess the acceptability of FPC products.

When can I start using the specification?

This standard applies only to projects that commence design development after February, 2026. There is no requirement to apply them retrospectively.

Project Managers, however, have the discretion to apply new requirements to in-flight projects where they see benefit.

Where can I find the specification?

The standard is available on:

- [iConnect](#) (for our staff)
- [SWDelivery Portal](#) (for our delivery partners)
- [Sydney Water website](#) (for public users)

How can I provide feedback?

If you have any feedback on this specification, please contact standards@sydneywater.com.au.

Please feel free to pass this alert onto others that may benefit.

