

## 1. SCOPE

This schedule covers the Ridgistorm XL Pipe System as manufactured by Polypipe Civils Ltd. It is applicable to pipelines or where gravity storage, diversion, treatment or processes of stormwater is required.

- Pressurised pipes and storage applications
- Using jointing mechanisms not specified in this assessment schedule

## 2. PRODUCT DESCRIPTION

### 2.1 Introduction

The Ridgistorm XL Pipe System is a large diameter structured wall pipe manufactured from virgin polyethylene.

The Ridgistorm XL Pipe System is available in a range of diameters between 750mm and 3000mm in length up to 12m in length. Pipes can be manufactured with pipe stiffness between 2 kN/m<sup>2</sup> and 8kN/m<sup>2</sup> and is available in four profiled variations:

### 2.2 Relevant Standards

Performance: the following relevant standards were identified:

- BS EN 13476-1: 2018<sup>(1)</sup> - Plastics piping systems for non-pressure underground drainage and sewerage - Structured-wall piping systems of unplasticized poly(vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE)

Ridgistorm XL Pipe System pipe profiles shall comply with the standards laid out in table 2 below.

Table 1 Ridgistorm Pipe wall profiles

Profile	Description
VW	solid wall
PR	Spiral tube, smooth intrados, profiled extrados
SQ	regular layers of tubes, smooth intrados, smooth extrados
OP	staggered layers of tubes, smooth intrados, profiled extrados

There are two jointing options either an integral electrofusion joint or push-fit elastomeric sealing rings.

Fittings (i.e. bends, reductions, manifolds, branches and special sections) are also within the scope of the assessment but only when fabricated from Ridgistorm XL pipes.

The following are excluded from the scope of this assessment schedule:

Table 2 Standards applicable to Ridgistorm Pipe wall profiles

Standard	Profile
BS EN 13476- 2:2018 <sup>(2)</sup>	TYPE A (VW & SQ)
BS EN 13476- 3:2018 <sup>(3)</sup>	TYPE B (PR & OP)

### 2.3 Approval History

This is the second re-approval of the Ridgistorm XL Pipe System:

- PT/284/0609 – 2009 revised January 2012.
- PT/348/0614 – 2014.

### 2.4 Design

In accordance with the German standard ATV A 127E<sup>(4)</sup>

### **3. TESTING AND REQUIREMENTS**

#### **3.1 Type Testing**

In addition to the standard(s) quoted in section 2.2, the Ridgistorm XL Pipe System shall comply with the test requirements detailed below.

The tests listed in WIS 4-35-01 shall be carried out on samples, as detailed below:

- Appendix A Resistance to Internal Puncture.
- Appendix B Resistance to High Pressure Water Jetting.
- Appendix C Longitudinal bending

Elastomeric seals (750mm–1800mm) shall meet the requirements of BS EN 681-1 (1996)<sup>(6)</sup>.

#### **3.2 Manufacture**

To ensure the quality and performance of Ridgistorm XL Pipe the manufacturing process shall include appropriate Quality Control procedures and systems for:

- Specification of component materials
- Verification component materials received are to specification;
- Detailed drawings for the pipe and fitting products;
- Handling and storage of all component materials;
- Production of pipe lengths;
- Fabrication of sections and quality of workmanship
- Training records

The production of Ridgistorm XL Pipe System and related Quality Control procedures shall comply with requirements to ensure the stated performance of the product is reliably achieved.

#### **3.3 Installation**

When installed in accordance with the installation documentation<sup>(7)</sup>, the installation shall be practicable and suitable for conditions that could reasonably be expected on site.

### **4. APPROVAL**

Ridgistorm XL Pipe System has been audited and has successfully met all the requirements stated within this assessment schedule.

Signed:



Valid until 1<sup>st</sup> June 2024

### **5. REFERENCES**

1. BS EN 13476-1 2018: Plastics piping systems for non-pressure underground drainage and sewerage - Structured-wall piping systems of Unplasticised poly (vinyl chloride) (PVC-U), polypropylene (PP) and polyethylene (PE) - Part 1: General requirements and performance characteristics. Includes a National Annex with additional guidance for UK users.
2. BS EN 13476-2 2018: Specifications for pipes and fittings with smooth

## PT/442/0619 - AS (June 2019)

**Assessment Schedule for the Ridgistorm XL Pipe System for gravity drains, sewers and attenuation tanks manufactured by Polypipe Civils Ltd.**



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- internal and external surface and the system, Type A.
3. BS EN 13476-3 2018: Specifications for pipes, fittings and the system, Type B.
  4. German standard ATV-DVWK-A 127E Static Calculation of Drains and Sewers. August 2000. ATV-DVWK.
  5. WIS 4-35-01: Water Industry Specification for thermoplastics structured wall pipes – supplementary test requirements, October 2008, Issue 2.
  6. BS EN 681-1: Elastomeric seals. Material requirements for pipe joint seals used in water and drainage applications. Vulcanized rubber, 1996.
  7. Ridgistorm-XL technical guide, dated May 2009, Section 4 Installation.