

Polypipe Building Services, Terrain FUZE (HDPE) Above Ground Soil System
Specification Clause

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1000 PERFORMANCE OBJECTIVES

The soil and waste from the building will be collected and discharged to the below ground drainage system by Polypipe Building Services, Terrain FUZE system. Terrain FUZE systems are in full compliance with BS EN 12056 part 2 gravity drainage systems inside buildings. All products are to be manufactured to BS EN 1519.

2000 SYSTEM DESCRIPTION

All soil pipework is to be Polypipe Building Services Terrain FUZE, which may be used in conjunction with either the Polypipe Building Services Terrain Acoustic dB12 or Polypipe Building Services Terrain series 100 waste systems, in the size range 32mm to 315mm. All Terrain FUZE joints are to either be butt or electroweld sleeve welded unless expansion joints are required when the Polypipe Terrain purpose made seal ring joint expansion fitting must be used. All pipes must be black in colour with a minimum of 2% carbon black to prevent UV degradation.

All pipes must have been tempered to reduce the risk of shortening (reversion) from high temperature discharges.

3000 MATERIALS

All materials will be manufactured under a BS.5750/ISO 9000 approved scheme.

All component parts of the system will be covered by Polypipe Building Services manufacturer's warranty.

Pipe fittings and accessories: Terrain FUZE (HDPE) carrying a current BBA Certificate 07/4479 to be manufactured to BS EN 1519.

4000 INSTALLATION

All pipe and fitting joints including the joint to the outlet will be fusion welded either by electro sleeve coupling or butt weld.

Expansion joints must be provided at a maximum of 5 metre intervals and / or changes in direction more than a metre apart unless clipping are positioned to allow movement.

Intermediate sliding supports must be provided in accordance with the Polypipe Building Services application technical manual.

Alternative fixing of horizontal pipes in excess of 1 metre in length may be made using the Polypipe Building Services purpose made pipe bracket to a square rail immediately above the pipe. Fixed points will be provided at 5 metre intervals by a means of a two part bracket insert on to the pipe. The rail is to be fixed to the roof structure at maximum intervals of 2.5 metres. The installer should allow for some secondary bracketing as a result of the height from fixing rail to roof structure. The installer is advised to visit site to survey the proposed routes.

Intermediate sliding supports to fasten the pipe to the rail will be at the following intervals:

Pipe 40mm to 75mm diameter	0.8 metres
Pipe 90mm diameter and above	10 x overall pipe diameter

5000 FIRE PROTECTION FOR HDPE PIPEWORK

Where pipes penetrate through fire compartments, built-in fire sleeves must be provided in accordance with BS 476 PART 20 and BS EN 1366-3 and Building Regulations part B. Fire protection to FUZE pipework sizes 50mm and above outside diameter, where it passes through a designated fire barrier, compartment walls or floors, to be Polypipe Building Services Fire Trap sleeves. Offering up to 4 hour protection. Reference 1925 series

The sleeve construction is of a graphite based intumescent material. The one-piece shell is to be slid around the pipe and held in place. Ensuring that no air gaps by filling with suitable fire stop compound or concrete

Fixing instructions are to be as per manufacturer's recommendations.

Vertical fixing within floor slab

Vertical FUZE pipework of sizes 56mm, 63mm, 75mm, 90mm, 110mm, 125mm, 160mm, 200mm, 250mm and 315mm outside diameter passing through a fire barrier to have a fire collar sleeve, supplied by Polypipe Building Services, positioned through the slab thickness, but exposed 25mm at floor level and underside of the slab. Following installation, all openings around the sleeve are to be made good using material that will provide the necessary fire rating (i.e. concrete etc).

Vertical fixing to soffit of floor slab

Vertical FUZE pipework of sizes 56mm, 63mm, 75mm, 90mm, 110mm, 125mm, 160mm, 200mm, 250mm and 315mm outside diameter passing through a fire barrier to have a fire trap collar, supplied by Polypipe Building Services, fitted around the pipework product range 1625 and to be securely fixed flush with the soffit of the floor slab. Any imperfection between the fire collar flange and the mating surface is to be filled with intumescent mastic. Refer to Polypipe Building Services manufacturers fixing recommendations for Firetrap Collars.

Horizontal fixing within wall thickness

Horizontal FUZE pipework of sizes 56mm, 63mm, 75mm, 90mm, 110mm, 125mm, 160mm, 200mm, 250mm and 315mm outside diameter passing through a fire barrier to have a fire collar sleeve, supplied by Polypipe Building Services, fitted around the pipework within the wall thickness with one face of the sleeve exposed. 2 hour rated up to 50-160mm diameter and 4 hour 200mm to 315mm diameter. If the wall is of sufficient thickness to accommodate two sleeves, each sleeve is to have a face exposed. Product range 1625 Refer to Polypipe Building Services manufacturers fixing recommendations for Firetrap Collars.

Horizontal fixing to surface of wall

Horizontal FUZE pipework of sizes 56mm, 63mm, 75mm, 90mm, 110mm, 125mm, 160mm, 200mm, 250mm and 315mm outside diameter passing through a fire barrier to have a fire collar sleeve, supplied by Polypipe Building Services, fitted around the pipework on both sides of the barrier. Both sleeves to be securely fixed to the barrier and any imperfection in the joint between the Fire collar flange and the barrier surface to be filled with an intumescent mastic.

6000 HEALTH AND SAFETY

When the horizontal high level pipework is being installed at high level, the installer will be responsible for providing a suitable working platform for the installation of the pipework. Where any power tools or electrical equipment is used in the installation of Polypipe Building Services pipework a Risk Assessment must be carried out before the commencement of work.

7000 RECORD DRAWINGS

The installer will keep a set of working drawings on site marked-up to show "as installed" routes, sizes, access locations, invert levels etc. On completing the installation, the installer will incorporate the alterations onto their working drawings using computer aided draughting and issue to the client via the engineer.

It should be noted that the installation would not be deemed complete until the record drawings and, where necessary, revised calculations have been issued and accepted.

8000 OPERATING AND MAINTENANCE MANUALS

The installer will issue four bound copies of Operating and Maintenance manuals for the soil & waste disposal system to include the following as a minimum: -

- (a) Indicating names and address of client, project manager, architect, consulting engineers, contractors and installer.
- (b) Description of systems installed.
- (c) Planned maintenance requirements.
- (d) Details of guarantee.
- (e) Schematics (which have been produced using CAD).

It should be noted that the installation would not be deemed complete until the Operating and Maintenance Manuals have been issued and accepted.

9000 INSPECTION and TESTING

The work shall be inspected and tested during installation at agreed stages. **ALL WORK WHICH WILL BE CONCEALED SHALL BE TESTED BEFORE IT IS FINALLY ENCLOSED.** A final test shall be made upon completion for soundness and performance in accordance with BS EN 12056-2 Code of Practice for Sanitary Pipework

All completed soil & waste systems to be air tested to a minimum of 38mm water gauge over 3 minutes. There will be no drop in pressure during this period in time. Every trap should maintain a water seal of at least 25mm

Smoke testing is not recommended for FUZE systems

For full details please refer to ;-
Technical Manual Terrain Fuze TFTM3-PT
Terrain Firetrap FTB3