

1. General

Terrain FUZE HDPE Soil and Waste drainage system consists of:

A range of extruded HDPE pipes made from PE-80

A range of injection moulded HDPE fittings made from PE-80

1.1 Operating Pressure and Temperature:

Terrain FUZE system is recommended for use as a gravity soil and waste system. It has a nominal pressure rating of 1.5bar.

The Terrain FUZE system shall work effectively over the temperature range -40c to +80c.

1.2 System Sizes

Terrain Fuze is manufactured in the range from OD 40mm to OD of 315mm

1.3 System Applications

Terrain FUZE HDPE system can be used for the following applications:

- In-building soil and waste
- Gravity rainwater
- Chemical (laboratory) soil and waste. Refer to the Terrain FUZE Technical Manual for table of chemical fluids and temperatures or email buildingservices.technical@polypipe.com

2. Quality Assurance

- BS EN ISO 9001 – Quality Management System
- BS EN ISO 14001 – Environmental Management System BS ISO 45001 – Occupational Health & Safety Management System
- PAS 99 – Integrated Management Registration
- BS ISO 56002 – Innovation Management System

2.1 Standards Compliance and Certifications

Pipes and Electrofusion Couplings are manufactured in accordance with BS EN 1519 Standard and is covered by British Board of Agreement certificate 07/4479 and Kitemark certificate KM 729217.

3. Fire Protection

Firetrap Sleeves for Terrain FUZE are rated up to 4 hours fire rating to BS 476 Part 20, BS EN 1366-3 and offers protection above and below slab. The Firetrap Sleeves also hold a European Technical Assessment ETA-20/1151

Firetrap Collars hold a European Technical Assessment ETA-20/1151 and BS EN 13501-1 (reaction to fire) and BS EN 13501-2 (resistance to fire).

Please refer to the Firetrap Technical Manual Literature & Technical Info | Polypipe or email buildingservices.technical@polypipe.com

4. Installation Guidance

4.1 General

All products to be manufactured to BS EN 1519

4.2 Electrofusion Weld

The Electrofusion fittings are available from 40mm to 315mm, the pipe should be cut square and scraped to de-oxidise the pipe surface. Using a clean cotton cloth wipe the internal surface and ends of the scraped de-oxidised pipes, pipes should be marked to register insertion depth and fully clamped prior to the electrofusion cycle.

4.3 Butt-Fusion Weld

This action is dependant of the machine type. Consultation with the machine manufacturer as to the operation of the machine and weld pressure required.

4.4 Thermal Movement

On vertical pipe run it is recommended that the Terrain FUZE expansion coupling is fitted per floor. The coupling must be anchored to a structure via a bracket so that the coupling shall not move when the system tries to expand/contract

On the horizontal pipe run it is recommended the Terrain FUZE expansion coupling is fitted every 6 metres. The coupling must be anchored to a structure via a bracket so that the coupling shall not move when the system tries to expand/contract

4.5 Stack Ventilation

A vent pipe for purposes of the installation shall be considered part of the system and as such be installed using the same methods as that seen for the soil pipe.

An alternative to the traditional secondary ventilation can be the Terrain P.A.P.A.®/Pleura system, this product can only be offered as a technical design option from Polypipe Buiding Services and schematic drawings would need to be provided to: buildingservices.technical@polypipe.com

4.6 Typical Terrain FUZE Riser Fittings per Floor Level

- 12 Port Low Level Manifold: 919.110.56B
- Access Pipe with Screw Cap and Internal Bung: 9938.110B
- Expansion Joint for rigid support: 911.110B
- Anchor/Guide Bracket x2: 9140.110B

5. Polypipe Advantage

The Terrain FUZE HDPE system can also be supplied as a fabrication option, the Advantage team supporting with design, fabrication, coordinated delivery and support. Enquiries should be sent to buildingservices.technical@polypipe.com

6. Testing

All completed soil and waste systems to be air tested to a minimum 38mm water gauge over 3 minutes. There will be no drop in pressure during this time period.