



WAVIN AS, LOW NOISE SOIL SYSTEM SPECIFICATION

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1. General

Wavin AS is a technologically advanced push-fit soil system that delivers significant noise reduction when compared to a standard soil system. Wavin AS meets the requirements of Part E of the Building Regulations and is tested in accordance with BS EN 1451 as well as the Local Authority Building Control (LABC).

2. Wavin AS Specification Clause

The soil system shall be Wavin AS ___mm diameter, comprising of Astolan, polypropylene minerally reinforced, resistant to hot water, DIN 4102, B2. Wavin AS has been tested in accordance with BS EN 1451 as well as compliance with the LABC. Wavin AS is passed and certified to BS 476 part 20 and EN 1366-3. Wavin AS is manufactured in accordance with quality management system ISO 9001 and environmental management system ISO 14001. All products must be installed in accordance with instructions issued by Wavin Limited.

3. Wavin AS System Applications

Wavin AS pipe and fittings can be installed in the following fields of application:

- Soil Stacks
- Suspended Pipe Systems
- Internal rainwater Pipes

Multiple storey building requiring noise insulation:

- Hotels
- Shopping malls
- Residential Homes
- Schools & University's
- Hospitals
- Office Buildings
- High rise apartments

4. Wavin AS System Sizes

The Wavin AS system is supplied in the following sizes:

- 110 mm
- 160 mm



5. Wavin AS Pipes and Fittings Characteristics

All Wavin AS pipes and fittings are made from the following materials:

Pipe: Material: Astolan, mineral filled PP, density 1.9 kg/dm³
 Colour: White / Grey RAL 7035
 Stiffness: DN 110 > SN 16
 DN 160 > SN 10

Fittings: Material: Astolan, mineral filled PP, density 1.9 kg/dm³
 Colour: white / grey RAL 7035
 Seals: SBR rubber

 Material: PVC-U*
 Colour: white / grey
 Seals: EPDM

**Please note that some fittings in the Wavin AS range are manufactured from PVC-U. These are the soil manifold, Bend 87°, WC Manifold Branches and Single Boss Pipes.*

6. Physical Characteristics of Mineral Reinforced Astolan

Characteristic	Result
Density	1.9g/cm ³ 3 DIN 53479
Elongation at break	29%
Tensile strength	13 N/mm ²
E-modulus	3800 N/mm ²
Coefficient of thermal linear expansion	0.09 mm/mK
Fire resistancy	DIN 4102, B2
Colour	Light Grey RAL 7035

7. Performance Objectives

7.1 Temperature Resistance

The pipe system needs to be resistant against continuous temperatures of 90°C and suitable for use with intermittent discharges of water up to 100°C. These figures may vary if used in conjunction with PVC-U fittings.

7.2 Sound Performance

Wavin AS meets the requirements of Part E of the Building Regulations and has a sound performance of under 30 dB (a) at 2 l/s.

7.3 Airborne Sounds

Sound which diffuses in the air. Occurs inside the pipe due to impact and flow noises. Due to vibration of the pipe additional airborne sounds are generated. Sound energy is absorbed in the pipe wall. Wavin AS pipe material provides excellent airborne sounds absorbing behaviour, because of its high specific weight and special molecular structure. Sound performance of under 30 dB (A) at 2 L/s



7.4 Structure Borne Sound

Structure borne sound transmits from the shock or impact zone over the whole pipe. The special molecular structure of Wavin AS enables the absorption of structure borne sound.

8. Installation

The system shall be installed all in accordance with Wavin's installation recommendations and be compliant with current Building Regulations. For further information about installation of the Wavin AS system please refer to the Wavin AS Product and Installation Guide.

8.1 Expansion Provision

For each pipe length a Wavin AS expansion compensator socket should be installed.

8.2 Bracket Fixing Instructions

Use full encircling Wavin AS brackets with rubber inserts.

Each pipe section between floors must be secured by a fixed bracket unless the pipe is casted into the concrete floors.

Every horizontally installed pipe should always be fixed with one fixed bracket.

9. Fire Protection

The Wavin AS Soil fire collar is for 110mm and 160mm Wavin AS pipes (when passing through steel framed partitions or masonry walls with a thickness of minimum 120mm and concrete floors with a thickness of at least 150mm) when tested to BS EN 1366-3:2004 for a fire resistance period of up to 120 minutes.

The Wavin AS fire collar has been approved by the LABC.

Fire Collar Technical Detail

	Pipe OD 110mm	Pipe OD 160mm
Thickness of intumescent layer	4mm	4mm
Number of intumescent layers	2	5
Total thickness of intumescent	8mm	20mm
No. of fixing lugs for masonry walls and concrete floors	4	6
External pipe closure diameter	132mm	210mm



10 Standards

10.1 LABC System Approval

The Wavin AS system has been tested by the Local Authority Building Control (LABC), who are satisfied that where robust construction details are not to be followed, the use of the Wavin AS System (without a mineral wool wrap) and only a nominal plasterboard encasement should not compromise any acoustic testing of a penetrated floor. Certificate number 377-9-7038, tested in accordance with BS EN 1451

10.2 German Standard Acoustic Requirements

The Wavin AS System also meets the acoustic requirements of the German standard DIN 4109, achieving a sound performance of under 30dB (A) at 2l/s.

10.3 Fire Test

The Wavin AS System has been passed and certified to BS 476 part 20 and EN 1366-3

11 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 Code of Practice for Sanitary pipe-work.

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

12 Storage

Wavin AS pipes should be stored in a shady well-ventilated area out of direct sunlight. Pipes should be stacked no higher than 1.5 metres. The elastomeric sealing rings should not be stored in the open air, and fire collars should be stored indoors.

13 Contact Details

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