



<u>Technical Specification</u> <u>OsmaSoil – Ring-Seal Soil (PVC-U) / OsmaSoil – Solvent Weld Soil (PVC-U)</u> <u>&</u> <u>OsmaWaste – Solvent Weld (ABS) / OsmaWaste – Push-Fit (PP)</u>

Contents

General Overview Applications **OsmaSoil – Ring-Seal Characteristics** -Material -Colour -Diameters -Coefficient of Thermal Expansion -Heat Resistance -Ultraviolet Light -Life Expectancy -Approvals **OsmaSoil – Solvent Weld Characteristics** -Material -Colour -Diameters -Coefficient of Thermal Expansion -Heat Resistance -Ultraviolet Light -Life Expectancy -Approvals **OsmaWaste (ABS) Characteristics** -Material -Colour -Diameters -Coefficient of Thermal Expansion -Heat Resistance -Life Expectancy -Approvals **OsmaWaste (PP) Characteristics** -Material -Colour -Diameters -Coefficient of Thermal Expansion -Heat Resistance -Life Expectancy -Approvals

Installation -Fixing Intervals -Thermal Expansion -Access -Gradient Testing Storage Contact Details

OsmaSoil – Ring-Seal (PVC-U)

General Overview

The OsmaSoil – Ring-Seal system offers an exceptional choice of pipe and fittings including brackets, bends, junctions, access fittings, and terminations.

To compliment the OsmaSoil – Ring-Seal system, we also have the OsmaWaste systems, WC Connectors, Traps, Condensate and Overflow ranges.

OsmaSoil – Ring-Seal system is manufactured in accordance with quality management system ISO 9001 and environmental management system ISO 14001.

All 110mm and 160mm soil pipe in this range is manufactured using Wavin's award winning Recycore[®] Technology and contains at least 50% recycled PVC and carries the BS EN 13476 Kitemark.

All products must be installed in accordance with instructions issued by Wavin Limited.

Applications

OsmaSoil – Ring-Seal system can be specified for the following applications:

- Soil Stack Systems
- Suspended Piping Systems
- Internal Rainwater Systems

Type of Projects include but are not limited to:

- Residential Houses
- Apartment Blocks
- Student Accommodation
- Hotels
- Schools
- Offices
- Retail Developments

OsmaSoil – Ring Seal Characteristics

The OsmaSoil – Ring-Seal 82mm (pipe & fittings) / 110mm & 160mm (fittings) are manufactured to BS EN 13291:2020 and the 82mm pipework is a solid wall pipe.

The OsmaSoil – Ring-Seal 110mm & 160mm (pipe) is a multi-layer solid core pipe made with over 50% recycled content. Pipes made with Recycore[®] Technology will perform exactly the same as the virgin products that they replace.

Soil pipes that carry the Recycore[®] Technology quality assurance mark are tested to BS EN 1453-1: 2000 and Kitemarked. Extensive and independent tests reveal that they have exactly the same performance characteristics as BS EN 1329-1: 2000.

<u>Material</u>

PVC-U

<u>Colour</u>

Black / Grey / White

Diameters

Diameter (mm)	82	110	160
Outside Diameter – Min. (mm)	82.4	110.0	160.0
Outside Diameter – Max. (mm)	82.8	110.3	160.4
Wall Thickness – Min. (mm)	3.3	3.2	3.2
Wall Thickness – Max. (mm)	3.5	3.5	3.8
Average Weight (kg/m)	1.22	1.64	2.44

Coefficient of Thermal Expansion

Coefficient (10-5m/m°C) = 7.8 Length / Temperature Equivalent (mm/m°C) = 0.078

Heat Resistance

The OsmaSoil – Ring-Seal pipes and fittings can withstand up to 60°C constant temperature or are suitable for use with intermittent discharges of water up to 90°C.

Ultraviolet Light

The OsmaSoil – Ring-Seal pipework and fittings have superior resistance to the effects of UV light and, although it may fade slightly after many years of exposure to strong sunlight, its integrity is unaffected.

Life Expectancy

The life expectancy of OsmaSoil – Ring-Seal system is in excess of 50 years.

Approvals

- BS EN 13291:2020 82mm (pipe & fittings) / 110mm & 160mm (fittings)
- BS EN 1453-1: 2000 110mm & 160mm (pipe)

OsmaSoil – Solvent Weld (PVC-U)

General Overview

The OsmaSoil – Solvent Weld system offers an exceptional choice of pipe and fittings including brackets, bends, junctions, access fittings, and terminations.

To compliment the OsmaSoil – Solvent Weld system, we also have the OsmaWaste systems, WC Connectors, Traps, Condensate and Overflow ranges.

OsmaSoil – Solvent Weld system is manufactured in accordance with quality management system ISO 9001 and environmental management system ISO 14001.

All 110mm and 160mm soil pipe in this range is manufactured using Wavin's award winning Recycore[®] Technology and contains at least 50% recycled PVC and carries the BS EN 13476 Kitemark.

All products must be installed in accordance with instructions issued by Wavin Limited.

Applications

OsmaSoil – Solvent Weld system can be specified for the following applications:

- Soil Stack Systems
- Suspended Piping Systems
- Internal Rainwater Systems

Type of Projects include but are not limited to:

- Residential Houses
- Apartment Blocks
- Student Accommodation
- Hotels
- Schools
- Offices
- Retail Developments

OsmaSoil – Solvent Weld Characteristics

The OsmaSoil – Solvent Weld 110mm & 160mm (fittings) are manufactured to BS EN 13291:2020.

The OsmaSoil – Solvent Weld 110mm & 160mm (pipe) is a multi-layer solid core pipe made with over 50% recycled content. Pipes made with Recycore[®] Technology will perform exactly the same as the virgin products that they replace.

Soil pipes that carry the Recycore[®] Technology quality assurance mark are tested to BS EN 1453-1: 2000 and Kitemarked. Extensive and independent tests reveal that they have exactly the same performance characteristics as BS EN 1329-1: 2000.

Material

PVC-U

<u>Colour</u>

Black / Grey / White

Diameters

Diameter (mm)	110	160
Outside Diameter – Min. (mm)	110.0	160.0
Outside Diameter – Max. (mm)	110.3	160.4
Wall Thickness – Min. (mm)	3.2	3.2
Wall Thickness – Max. (mm)	3.5	3.8
Average Weight (kg/m)	1.64	2.44

Coefficient of Thermal Expansion

Coefficient (10-5m/m°C) = 7.8 Length / Temperature Equivalent (mm/m°C) = 0.078

Heat Resistance

The OsmaSoil – Solvent Weld pipes and fittings can withstand up to 60°C constant temperature or are suitable for use with intermittent discharges of water up to 90°C.

Ultraviolet Light

The OsmaSoil – Solvent Weld pipework and fittings have superior resistance to the effects of UV light and, although it may fade slightly after many years of exposure to strong sunlight, its integrity is unaffected.

Life Expectancy

The life expectancy of OsmaSoil – Solvent Weld system is in excess of 50 years.

Approvals

- BS EN 13291:2020 110mm & 160mm (fittings)
- BS EN 1453-1: 2000 110mm & 160mm (pipe)

OsmaWaste Solvent Weld (ABS) Characteristics

The OsmaWaste (ABS) Solvent Weld is a solid pipe made with virgin material.

<u>Material</u>

ABS

<u>Colour</u>

Black / Grey / White

Diameters

Nominal Diameter (mm)	32	40	50
Outside Diameter – Min. (mm)	36.1	42.7	55.7
Outside Diameter – Max. (mm)	36.5	43.1	56.1
Wall Thickness – Min. (mm)	1.8	1.9	2.0
Wall Thickness – Max. (mm)	2.2	2.3	2.4
Average Weight (kg/m)	0.23	0.28	0.40

Coefficient of Thermal Expansion

Coefficient (10-5m/m°C) = 10.1 Length / Temperature Equivalent (mm/m°C) = 0.101

Heat Resistance

OsmaWaste (ABS) Solvent Weld pipes and fittings can withstand up to 60°C constant temperature or are suitable for use with intermittent discharges of water up to 90°C.

Life Expectancy

The life expectancy of OsmaWaste (ABS) Solvent Weld is in excess of 50 years.

Approvals

• BS EN 1455-1: 2000

OsmaWaste Push-Fit (PP) Characteristics

The OsmaWaste (PP) Push-Fit is a solid pipe made with virgin material.

Material

PP

<u>Colour</u>

Black / Grey / White

Diameters

Nominal Diameter (mm)	32	40	50
Outside Diameter – Min. (mm)	34.4	40.8	53.9
Outside Diameter – Max. (mm)	34.8	41.2	54.3
Wall Thickness – Min. (mm)	1.8	1.9	2.0
Wall Thickness – Max. (mm)	2.2	2.3	2.4
Average Weight (kg/m)	0.187	0.225	0.335

Coefficient of Thermal Expansion

Coefficient (10-5m/m°C) = 15.0 Length / Temperature Equivalent (mm/m°C) = 0.150

Heat Resistance

OsmaWaste (PP) Push-Fit pipes and fittings can withstand up to 60°C constant temperature or are suitable for use with intermittent discharges of water up to 100°C.

Life Expectancy

The life expectancy of OsmaWaste (PP) Push-Fit is in excess of 50 years.

Approvals

• BS EN 1451-1:2000

Installation

The respective current codes of practice must be observed in the installation of OsmaSoil & Waste systems.

These systems are to be assembled only by trained and qualified professionals and with appropriate tools only.

Fixing Intervals

Pipe should be supported in accordance with the below table which shows the maximum support centres for pipes installed vertically and horizontally.

Brackets are available to meet all support requirements for OsmaSoil & Waste systems.

Pipe Diameter (mm)	Vertical Fixing Interval (m)	Horizontal Fixing Interval (m)
32	1.2	0.5
40	1.2	0.5
50	1.5	0.6
110	2.0	1.0
160	2.0	1.2

Thermal Expansion

Ring-Seal Systems:

Correctly made and anchored ring-seal/push-fit joints will accommodate thermal movement with no requirement for expansion fittings.

Pipes & fittings connected to horizontal and vertical pipes >2 meters to be retracted 10mm to allow for thermal expansion.

For vertical pipes, directly secure position with brackets to prevent slipping and eliminating the 10mm dilatation space.

Solvent Weld Systems:

Provision for thermal movement is required:

For all pipe runs over

- 3m for 32mm, 40mm or 50mm pipe.
- 4m for 110mm or 160mm pipe.

Between any two fixed points 1m or more apart.

Fixed points include:

- Fittings supported by socket brackets.
- Changes of direction.
- Branches from other appliances.

Pipe brackets allow the movement of pipework between fixed points whilst keeping the pipework steady.

The following components are available for the creation of thermal expansion joints:

OsmaSoil – Solvent Weld system:

• Expansion Cap 4S416 (110mm) and 6S416 (160mm)

ABS Solvent Weld Waste system:

• Expansion Socket 4Z124 (32mm) / 5Z124 (40mm) / 2Z124 (50mm)

<u>Access</u>

Access points should be provided to enable all pipework to be tested and maintained effectively. To facilitate use of testing and cleaning equipment, Access points should be positioned so that:

- Building structures such as walls and ducts do not impede use of the equipment.
- No danger or nuisance is likely if leakage should occur.

This can be achieved by positioning access points above the spill-over levels of any pipework which may be affected by blockages.

Gradient

The OsmaSoil & Waste systems should be installed with a minimum fall of 1:56 (18mm/m) as per BS EN 12056:2000

Testing

On completion of any installation work, the systems should be inspected and tested in accordance with BS EN 12056 and Part H of the Building Regulations.

Air testing is the preferred form of leak detection. The use of smoke testing of plastics pipework should be avoided.

Storage

Always store pipes on a flat surface. Pallets may be stacked up to a maximum height of 1.5m without additional supports or side protection. Loose pipes must be held in place by at least 2 side supports spread evenly across their length. When storing, loose pipes may be stacked up to a maximum height of 1.5m, preferably supported along their entire length. If this is not possible, place wooden supports with a minimum width of 75mm under the pipes and spaced no more than 1m apart.

Stack pipes of different sizes separately or, if this is not possible, stack them in such a way that the largest diameter pipes are at the bottom. Pipes with sleeves should be stacked alternately so that they are supported along their entire length.

Fittings are supplied in boxes and must be stored indoors. Do not subject fittings to heavy loads, as this can deform them.

Contact Details

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