

PRIORA®

CONDITIONS AND GUIDELINES FOR USE

Permeable Block Paving System
for Sustainable Urban Drainage

Conditions required for Piora

The grade of Piora featured in this brochure is only intended for normal domestic vehicles and pedestrian traffic, though occasional delivery vehicles over 3.5 tonnes gross weight can be tolerated.*

The Domestic Piora System is only intended for driveways or paths where infiltration is required only in the immediate Piora paved area and not from other surrounding paved or roofed areas (see rainwater catchment area guideline opposite).

In some parts of the country there are ground conditions where infiltration could adversely affect foundations to houses, therefore, if in doubt seek advice from a specialist or the local authority building control department.

Properties constructed pre 1920 may not have been built on traditional concrete foundation, therefore, if this is proved to be correct during excavation then Marshalls Domestic Piora System should not be installed.

Check for services, Piora must not be installed if gas or electric services run through intended Piora areas.

*Piora is a trademark of UNI-International baustysteme GmbH

Guidelines for installing Piora

Surface Gradient

The intended Piora area must fall away from the owner's house and any other buildings in the immediate vicinity.

If the driveway exceeds 20m in length and/or has a gradient greater than 1 in 100 then please contact Marshalls Technical Advisory Service.*

The top surface of the driveway should finish at least 150mm below any adjoining wall DPC level.

Existing Foundations

If your house lies adjacent to or less than 600mm from the proposed Domestic Piora driveway area, establish depth of house foundation before undertaking any soil test/Piora installation. The house foundation top surface must be 600mm (minimum) below the finished level of the top of the proposed Piora driveway.

Soil Strength and Permeability

Marshalls Domestic Piora System must be laid on a subgrade which has previously had an established and adequate existing driveway and an area which has a subgrade soil strength greater than 5%.

The Domestic Piora System is only suitable for soil areas where infiltration applies and the test criteria have been met as per the standard permeability test.

For the standard permeability a test hole should be dug for every 20m² of driveway. There should be a minimum of two holes. Holes/pits should be spaced evenly in relation to the proposed Piora area.*

Discharge onto Roadway

The Domestic Piora area must not discharge onto surrounding public roadway and pathways and towards any buildings.

Rainwater Catchment Area

No adjoining surface areas (rainwater pipes, roof areas, etc) must drain onto and into the proposed Domestic Piora driveway area, however, small areas such as door steps and garage areas are acceptable providing they do not exceed 5% of the driveway area.

Guideline: Catchment area **= driveway area

**Catchment area = drained surface area

Aggregates

Piora must be laid with 20mm and 6mm clean crushed stone aggregate to BS EN13424 and BS EN12620 to ensure compliance.

Properties	BS EN13424 & 12620 Specification
Grading	
Fines content	f ₄
Shape	Fl ₂₀
Resistance to fragmentation	LA ₃₀
Durability	
- Water abs to BS EN1097-6: 2000, Clause 7	WA ₃₀ 2
- For WA ₃₀ ≥2%, magnesium sulphate soundness	MS ₁₈
Resistance to wear	M ₀₆ 20
Acid-soluble sulphate content	AS ₀₂
Total sulphur	≥ = 1% by mass

Trees

When installing in close proximity to existing trees, tree roots smaller than 25mm diameter may be pruned back, preferably to a side branch, using a suitable pair of secateurs or hand saw. Roots larger than 25mm should only be severed following consultation with an arboriculturist, as they may be essential to the tree's health and stability. Protection of the pavement will also be required, hence the requirement of a permeable root barrier system such as the Geoweb bio barrier system (www.Fiberweb.com) or similar which is non surface protruding, and therefore, does not present a trip hazard once installed.

Health and Safety

It is possible that more excavation for a Piora driveway may be required than that of a driveway constructed of traditional block paving, therefore, care must be taken when excavating ground to a deeper level. Particular care must be taken to protect the sites from children and partially sighted persons and for collapse of adjoining features such as boundary walls/fences.

Check for services, if they run through intended Piora areas, the service provider must be consulted before work commences.

Care must be taken when constructing over sewer, rainwater pipes and water pipes to ensure that the services remain supported for their full length by undisturbed material and are surrounded on the remaining sides by a minimum of 150mm of 6mm material to protect the service.

*Advice is available from the Technical Advisory Service on 0870 411 2233 should you require a more detailed discussion on the intended use of the area.



Marshalls Register Installers who require Piora installation training should initially call 0845 820 5000 or contact the Marshalls Register