



INSTALLATION DETAILS FOR PREFORMED STEP UNITS

CONCRETE, NATURAL STONE & VITRIFIED CERAMIC UNITS

General Information

On delivery, the product should be inspected. If there are **any** issues, please report them immediately and do not commence installation.

Before installation commences a certain amount of sorting of the product may be required to ensure consistency of colour, texture and dimensional tolerance.

Natural stone products are unique and you can expect colour and veining variances between each unit.

Please note that preformed step units are not suitable for use near to or surrounding swimming pools.

Health and Safety Information

Safe working practices should be employed at all times during the construction process and all necessary Personal Protective Equipment (PPE) should be worn.

Foundation

The foundation for the step units should be formed from a suitably constructed foundation, designed to take into account site conditions and loads. The design for the stepping foundation will need to consider the required step tread and riser dimensions.

The preferred dimensions for the risers are between 150mm – 170mm, and the preferred dimensions for the stair treads are between 280mm – 425mm.

Laying

Before laying, ensure that the step surface is dry and free from dirt and detritus, which may influence and compromise the adhesion characteristics between the foundation and the step unit

To prevent trapped moisture becoming dispelled, which may lead to discolouration to the finished surface, apply a suitable moisture retardant primer evenly over the foundation so as to form a moisture barrier

Step units should be supported on a full 'wet' workable mix mortar bed (1:4 cement/sharp sand). The mortar bedding should be laid to give a thickness between 15mm and 30mm. To increase adhesion to the mortar bed and prevent separation, Ultrascap Pro-Primer slurry primer or similar flexible bonding agent compound should be applied to the back of the flag prior to installing onto the mortar bed.

Gently tamp down onto the mortar bed using an appropriate rubber maul. Adjustment may be necessary to ensure that the units are fully supported and do not rock or move, and that desired levels and falls are achieved.

Jointing

Assuming the stepping foundation has been prepared following the details discussed above, the step units maybe close jointed, leaving dry gaps of 2mm minimum.

Alternatively, wide joints can be adopted and should be fully filled utilising a complimentary mortar.

Cutting

Units should be cut using a powered disc cutter with a suitable blade; for example, a diamond tipped cutting blade. It is advised that wet dust suppression techniques are to be considered so as to control the dispersion of dust. Wet dust suppression is not advised on saws that are electrically operated, for which Marshalls would advise other methods of dust particle protection are sought, e.g. appropriate respiratory protection equipment.

It is recommended that the required width of the stepping area is measured prior to construction; this dimension should then be divided by the width of the individual step unit (1000mm) to ascertain the number of full step units required. Any partial, remaining dimension should be halved and units cut to this size should then be installed at either end of the stepping area to ensure a consistent appearance.

Cutting

Cutting may be carried out using a diamond tipped power saw. It must however be noted that the aesthetic finish achieved will depend greatly upon the choice of cutting mechanism and level of skill. Specific equipment or blade types should be used when cutting natural stone units as those designed for cutting concrete only may blunt easily. If more than 25% of a flag or slab requires cutting then the remaining piece should be cut from the internal corner of the cut to the external corner of the flag or slab, at an angle of preferably 45°.

Inclement Weather

Laying operations should be discontinued (and any open work face covered) if weather conditions are such that the performance of the paving may be jeopardised. Laying operations should not be undertaken when the temperature is below 3°C on a falling thermometer and below 1°C on a rising thermometer. All unfinished areas and stockpiles of materials should be covered in the advent of inclement weather to prevent saturation.

Further Information

For further technical advice, or when confronted by unusual problems or circumstances, please contact Marshalls Technical Advisory Services on 0370 411 2233, or by email on advisory.services@marshalls.co.uk

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