

1. SURFACE TYPE AND CONDITION (BY OTHERS)

Pavegrid[®] can be installed onto asphalt, concrete, planed and cement stabilised surface types where the surface condition is acceptable.

An acceptable surface condition is:

- a. undamaged, uniform and level.
- b. clean and free from oil, vegetation, sand, dirt, water, gravel and other debris.
- c. no greater than 40°C (104°F)

If the surface is not acceptable, as above:

- a. apply a dense grade regulating layer 19mm thick. Complete all crack/joint sealing >5mm width, pothole filling and base repairs.
- b. clean using a mechanical sweeper (or hand brush for small areas).
- c. allow to cool.

2. WEATHER CONDITION

Pavegrid[®] shall be installed ONLY when the weather condition is acceptable.

An acceptable weather condition is:

a. Dry, damp, drizzle and light rain.

An unacceptable weather condition is:

a. Medium to heavy rain, standing water, sleet or snow.

3. MASKING IRONWORKS, KERBS & STREET FURNITURE

Before the application of the 65%+ polymer modified bitumen emulsion bond coat, ironworks, kerbs and street furniture shall be masked and/or protected. Masking shall be removed after the Pavegrid[®] installation and before the surfacing operation commences.

4. PAVEGRID® PLACEMENT

Pavegrid® shall be placed sufficiently deep within the bound layers so that it is not removed when the surface course is replaced. If a surface course it to be placed directly on Pavegrid[®], approval by the overseeing organization (a Departure from Standard) will be needed.



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5. APPLICATION OF BOND COAT

Apply a 65%+ polymer modified bitumen emulsion bond coat at a calibrated rate of 1.0 litre/m², using a calibrated spray tanker. On porous surfaces increase the application rate accordingly. The installation of Pavegrid[®] may commence once the bond coat has 'broken'. Bitumen road emulsions to BS 434 at a temperature of approximately 30°C to 60°C shall be applied uniformly, free of streaks and blobs by mobile mechanical spray tanker. The trained operator from the cab position controls the spray bar. For small areas a hand lance may be used.

The rate and accuracy of the distribution of the polymer modified bitumen emulsion bond coat shall be checked at the commencement of the work by means of a carpet tile test carried out in accordance with BS 12272-1:2002 and meet the requirements for Class 2. This test shall be repeated for each binder distributer used during the course of the work.

6. PRODUCT PREPARATION

Ensure product and packaging is not damaged. Do not use damaged product. Do not stack more than six rolls high. Store inside whenever possible.

7. SURFACE TESTING

- 1. Inspect and record the Surface Type. If acceptable, continue test.
- 2. Inspect and record the Surface Condition. If acceptable, continue test.
- 3. Test and record the Surface Temperature. If acceptable, continue test.
- 4. Apply 65%+ polymer modified bitumen emulsion bond coat at a calibrated rate of 1.0 litres/m², using a calibrated spray tanker.
- 5. Test and record 1m² Surface Adhesion. If 9kg or more, continue to Installation Method.

8. INSTALLATION METHOD

- 1. Pavegrid[®] shall be installed with the glass fibre grid face up.
- 2. Lay the grid flat by hand or mechanical applicator.
- 3. Brush the grid under enough tension and pressure to eliminate ripples or folds to bleed the bitumen binder into the geotextile.
- 4. Should ripples occur, remove by pulling the grid tight or in extreme cases (on tight radii), by cutting and laying flat in the direction of pavement construction.
- 5. Cut around ironworks using a cutting tool.
- 6. Longitudinal joints must overlap by 50mm minimum. Transverse joints must overlap by 100mm minimum in direction of pavement construction.
- 7. All laps must be fixed with bitumen binder and geoclips.
- 8. The bitumen binder must be allowed to cure sufficiently prior to pavement construction.



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8. INSTALLATION METHOD (Continued)

- 9. Traffic is not allowed on the grid. Construction, emergency and/or restricted traffic may run on the grid, with extreme care and attention. Ensure damage is not caused to the grid by vehicles turning or braking. Any damaged sections must be removed and patched, taking care to completely cover the damaged area prior to overlaying. The grid must be kept clean of oil, vegetation, sand, dirt, water, gravel and other debris.
- 10. Conventional pavement construction methods may now commence with a minimum of 40mm depth compacted asphalt overlay. This value must not be less. Pavegrid[®] must be covered in the same construction phase. During placement of the asphalt pavement the binder will become warm and soak through the Pavegrid[®] which integrates into the asphalt pavement.
- 11. Temperature of the asphalt <175°C.
- 12. Should the surface of Pavegrid[®] become wet prior to paving due to rain or other means, wait until the grid dries before commencing pavement construction.
- 13. Low paver speeds may result in over-compaction of the asphalt mix, causing the slipping and future cracking of the course.
- 14. For compaction, less compaction effort is required, i.e. a lower number of roll passes is required. The number of roll passes shall be specified and varied in each case by test compaction and observed during construction.

9. QUALITY CONTROL AND QUALIFICATION

- 1. In conformance with the Road Solutions Ltd Quality Assurance Policy and the monitoring of Quality Control, an Installation Assessment Form and Quality Plan / As Built Manual must be fully completed and retained on file.
- 2. All binder applications must be compliant with Uniformity Test for the Transverse Distribution of Binder BS 1707:1989 Hot Binder Distribution for Road Surface Dressing or similar approved. All binder must comply with BS 13808:2005 Specification for Bitumen Road Emulsion, BS 3690 Part 1-Bitumen for Building and Civil Engineering, BS 12591-Bitumen and Bituminous Binders-Specification for Paving Grade Bitumen's or similar approved. All binders shall be applied directly below the Pavegrid[®] in accordance with the minimum application rates given in BS 594987.
- 3. Detailed procedures for the specific road construction shall be developed on the basis of the general installation procedure, in view of the paving width and the properties of asphalt courses to be installed below and on the Pavegrid[®] and the construction procedure used.

DISCLAIMER

Inasmuch as Road Solutions Ltd has no control over installation design, installation workmanship, accessory materials, or conditions of application, Road Solutions Ltd does not warrant the performance or results of any installation or use of Pavegrid[®]. This warranty disclaimer includes all implied warranties, statutory or otherwise, including the warranty of merchantability and of fitness for a particular purpose.

The purchaser and/or user should perform its own test to determine the suitability and fitness of the product for the particular purpose desired in any given situation.



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