

## SAFETY BACKING FOR PORCELAIN PAVERS

Porcelain pavers have many advantages over other paving materials including:

- Chemical resistant
- Compressive strength in excess of 20,000 lbs.
- Abrasion resistant
- Low absorption (less than 0.1%)
- Stain resistant
- High static load capacity

The superior physical properties porcelain pavers offer over other building materials are numerous. However, porcelain pavers can crack when subjected to high impact point loading. Most impact damage is minor, but in some cases the structural integrity of the paving unit can be compromised. Broken or cracked pavers should always be replaced immediately. As a safety measure, Belgard recommends that a safety backing be utilized for raised floor installations (i.e. pedestals set above 1") subjected to pedestrian use. In the event of a fracture the safety backing will bridge and stabilize the surface and minimize potential pedestrian injury. Belgard has identified three safety backing options recommended for pedestal-set (> 1") porcelain paving options.

Double layer fiber mesh applied at the factory that has been tested in accordance with:

- ASTM D4595 Tensile properties of geotextiles
  - » Breaking force (lbf)
  - » Tensile strength (lbf / inch of width)
  - » Elongation (%)
- ASTM D903 Stripping strength of adhesive bonds
  - » Peeling load (lbf)
  - » Peel strength (lbf / inch)



Field applied self-adhering support trays provide by Bison Innovative Products per their instructions. Basic steps to be followed include:

- Release paper from adhesive on tray being careful to keep adhesive free from moisture & debris
- Place the tray adhesive side down to the bottom side of the paver being sure to keep the edges properly aligned. Press firmly on the tray prior to stacking
- Carefully stack (no more than 10 high) the paver tray assembly on top of each other with a shim between each paver



Heavy gauge steel safety plate provided by MRP Supports tested in accordance to ASTM E2322 for concentrated load. Features of the system include:

- 12-gauge galvanized steel sheet
- Absorbs structural movements
- Does not require adhesives or special tools for installation
- Hooks the spacing tabs on pedestals to increase resistance of fall through
- Not intended to prevent wind uplift





It is necessary to comply with local regulation and conditions of use with regards to wind load, load bearing, seismic events, etc. Failure to comply with these recommendations and improper use of the product could cause damage and potential harm. The project engineer and / customer must carefully assess the project requirements with regards to the technical specifications of the pavers.

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