

INSTALLATION & TECHNICAL GUIDELINES FOR PREP

ROLL INSTALLATION

It is recommended that Prep roll be installed by sticking directly to the sub-floor or over an underlay.

SUB-FLOOR PREPARATION

The subfloor should be dry, sound and level. Using a hygrometer, the relative humidity of the subfloor must NOT exceed 75% - this is a stipulation of the British Standards for Floor Laying Procedures (ref. BS 8230). Otherwise shrinkage or bubbling can occur and the adhesive bond to the subfloor may be compromised. If installing by direct stick, do not prime or seal the sub-floor. If the subfloor requires levelling, use a sand/cement screed.

ACCLIMATIZATION

At times of extreme humidity changes it is best to unroll the carpet or roll it loosely and allow it to acclimatize for twenty-four hours before installation in the area in which it is to be laid.

CUTTING THE CARPET

Prep's unique construction allows the carpet to be cut in any direction without fraying. Seams must be double cut when installing bright or non-heather colors to ensure the cleanest possible join. Seam sealer is not required; however, it may be advisable to seal joins where Prep is cut into designs or where frequent wet cleaning is likely. Seam sealing will limit the ingress of moisture, which can undermine the adhesive bond to the subfloor and cause shrinkage. ***Installers please note that once you have cut the carpet, you own it!*** Remember to check color, quantity, batch and roll sizes against your order before cutting.

DIRECTION OF LAYING

We recommend that rolls be laid with the ribs running perpendicular to the principle light source. Note: Prep's ribs run across the roll. Tiles should be tessellated i.e. laid checkerboard. ***Note: Where rolls are laid side by side, the rolls must be laid in the same direction to avoid an illusion of shade variation.*** This is done by keeping the line marked on the back of each roll always to the same side. On stairs, the ribs may be run parallel or perpendicular to the step.

ADHESIVE

For permanent bonding, use only rubber/resin-based adhesives: F.Ball's F3, Mapei Ultrabond Eco 220 (Australia & New Zealand) or Parabond 4099, Polymer 265 or Durabond LE9000 (USA). When installing Prep Tiles we recommend a peel-able/release adhesive such as F.Ball's F41 or Parabond 5080 (USA). When installing Prep on walls, we recommend a high-tack adhesive such as F.Ball's F66 or Parabond 4099 (USA). ***PLEASE NOTE: Spirit based adhesives must never be used when installing Prep. Their use voids all manufacturer warranties.***

ADHESIVE APPLICATION

DIRECT STICK: Spread Styccobond F3 with the recommended 'V' notched trowel (2.4mm x 4.75mm). The coverage rate should be 12-15m²/5 liters. Prep must be 100% adhered to the subfloor - no spot gluing. Place the carpet and press from the center outwards to exclude air and ensure overall contact with the adhesive. Roll from end-to-end and side-to-side using a 68kg roller. Roll again after 30 minutes.

OVER UNDERLAY: If installation over an underlay is preferred, a double-stick system must be used with a contract quality underlay (please refer to your local distributor for specific recommendations). The carpet must be 100% adhered to the underlay and the underlay 100% adhered to the subfloor. When applying the Styccobond F3 to the underlay, use a 2.4mm x 4.75mm 'V' notched trowel. Do not use a pressure sensitive/release adhesive at any stage.

CARPET INSTALLATION

In contract situations Prep should always be installed by 100% (all over) direct adhesion to the subfloor using a permanent bond adhesive. If an underlay or pad is required or preferred, a double-stick system and dense, contract grade underlay should be used. 100% adhesion will prevent expansion, contraction and bubbling resulting from changes in humidity. In all dual bond installations, cross-joins must be heat bond taped using dual-bond heat bond tape. In direct stick installations, cross-joins may also be heat bond taped using dual-bond heat bond tape or, if not, must be temporarily tacked in place until the adhesive has permanently bonded so that the joins do not open.

PLEASE NOTE: The carpet must never be spot glued.

To avoid problems with shrinkage do not lay Prep into overly wet adhesive. It is important to allow the adhesive to tack-up (dry to a paste like consistency) before lowering the carpet. Tack-up time will depend on atmospheric conditions and on the absorbency of the substrate. The correct tack-up time can be determined by placing a small piece of carpet into the adhesive. When the carpet is pulled away, strings or cobwebs should be apparent. If the correct tack has not developed, wait five minutes, re-check, and re-check every few minutes thereafter until cobwebs appear. Double-dropping the carpet into the adhesive can reduce tack-up time. Shrinkage can only occur if there is: excessive moisture in the subfloor; too high water content in the adhesive; insufficient time is allowed for correct tack to build-up; or there are significant changes in air humidity during installation. **PLEASE NOTE:** Shrinkage is not caused by or accepted as a manufacturing fault. Only cut-in around the perimeter once the adhesive is set

Please Note: adhesive tack-up time will be longer over rubber underlay as it is non-absorbent. When installing over an underlay, to help protect against shrinkage or simply for aesthetic reasons, a 3" wide, flat edge/architectural strip with 3 rows of low profile tacks may also be used around the edge of the room. The carpet is hooked over these, to hold the carpet tight, and tucked-in to give a softer finish to the edges. Cotton head stretchers must be used to avoid tearing or damaging the carpet and seams should be located no closer than 6"-8" from the edge of the room to avoid unsightly peaking.

In residential situations, the carpet may be loose-laid and joined using wide adhesive tape.

UNDER FLOOR HEATING

Both Prep and the recommended adhesives are suitable for use over under floor heating. However, it is recommended that the heating be switched off for 48hrs prior to installation of the carpet and for 48hrs after installation and temperature increased gradually when turned back on.

LIGHT SOURCE

If possible, lay the cord rather than the roll, perpendicular to the primary light source. Please note, if the cord runs parallel to the light source or if there is very strong overhead lighting, a reflection off the backing may be visible between the ribs until the carpet has settled-in. This is not a manufacturing fault and does not indicate below-standard tuft weight. The phenomenon is only visible when the carpet is newly laid and is not a cause for concern.

SHADING

Prep cord carpet is a natural fiber product. Different production runs of the same product may therefore be subject to shade variation. This is not a defect or a manufacturing fault.

INSTALLATION ON STAIRS

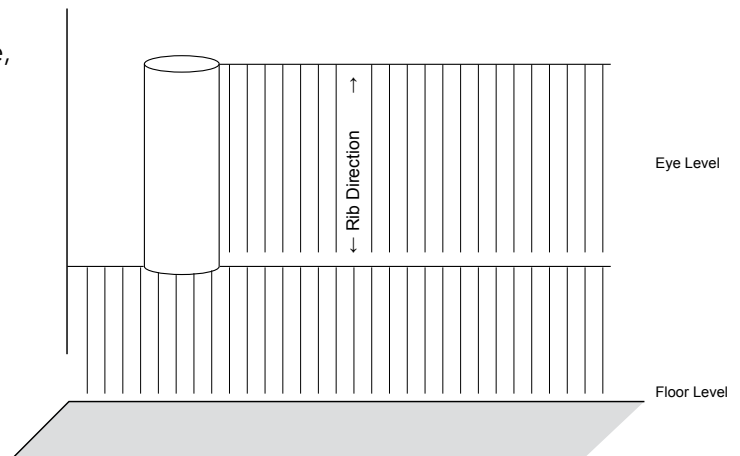
In contract situations stair nosing's should be used. In residential situations, Prep roll should be fitted over good quality stair pads and the stair carpet moved periodically.

INSTALLATION ON WALLS

Prep can be installed as an acoustic wall covering on any clean, dry, smooth surface such as concrete, dry wall, plaster, particle board, metal, plastic, laminate or ply wood (min thickness 12mm or 1"). Do not install over wallpaper or vinyl wall coverings. Avoid locating horizontal seams at eye level. When installing Prep

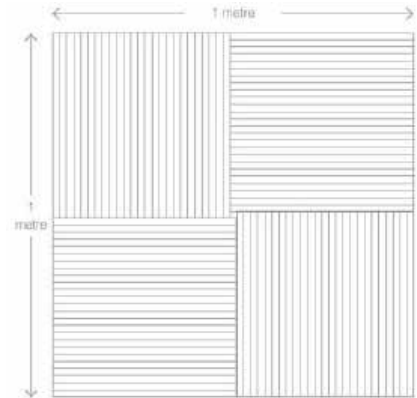
on walls, we recommend a high tack adhesive such as F.Ball's F66 or Durabond D7.

When installing Prep on walls with ribs running vertically, run full roll along ceiling line to keep seam below eye level. Reference wall installation lists are available on request.



TILE INSTALLATION

Laying tiles should commence as near as possible to the center of the room, with a square of 4 tiles. All tiles should be tessellated i.e. laid at right angles to each other. Tiles should appear to be offset against tiles laid in the same direction (see diagram). The outside of the square must however be straight and measure 1 meter on all 4 sides. In contract situations, we recommend tiles be secured using a peel-able adhesive, located in such a way as to form a stress pattern. When installing tiles we recommend a peel-able or release adhesive. In residential situations tiles may be loose laid. When installing Prep tiles we recommend a peel-able/release adhesive such as F.Ball's F41 or Durabond LE2PR or Mapei Eco 800.



PLEASE NOTE: Laying the 4 tiles in 1m x 1m squares helps to avoid any problems or confusion caused by the optical illusion evident at the intersection of the 4 tiles. This diagram is not to scale and is for illustrative purposes only.

TECHNICAL INFORMATION

FLAMMABILITY

- BS 4790: 1987 Mean radius of burning: 25mm Class: low
- BS EN ISO 11925:2002, BS EN ISO 9239-1: Euroclass Cfl-s1
- Critical radiant flux tests: ANSI/ASTM E648 result category 1
- AS ISO 9239.1-2003. Direct Stick - CHF value: mean 7.2 kW/m²
- Dual bond - CHF value: mean 5.7 kW/m²
- Conclusion: Suitable for all commercial / contract installations including institutional, commercial and public buildings.

THERMAL TRANSMISSION PROPERTIES (BS 4745:1971)

- Thermal resistance: 1.76 togs
- Thermal conductance: 5.68 W/m² ·°C
- Thermal conductivity: 4.99 Wcm/m² ·°C
- Conclusion: Satisfactory thermal properties for normal underfloor heating.

ELECTRICAL PROPERTIES: STATIC

- IBM and ICL Tested at 40% RH and 200C: Passed
- Recommendation: To prevent discomfort a minimum of 40% RH should be maintained.

LOSS IN THICKNESS AFTER DYNAMIC LOADING (BS 4052:1987)

- Thickness loss % after 1000 impacts 13.33%

COLOR FASTNESS (BS1006:1990)

- to light 5-6 very slight to nonE
- to water spotting 4 very slight
- to carpet shampoo 3-4 very slight
- to rubbing 4 very slight

IMPACT INSULATION (BS 2750:1980)

- | | | | | |
|---------------------------------------|------|------|------|------|
| • Centre Band Frequencies (Hz) | 200 | 400 | 800 | 1000 |
| • Test 1 bare concrete (dB) | 66 | 69 | 71 | 71 |
| • Test 2 bare concrete with Prep (dB) | 57.2 | 45.5 | 33.7 | 25.6 |
| • Regulatory Requirements (dB) | 66 | 66 | 64 | 63 |

- Conclusions: This carpet meets the requirements of the building regulations by a useful margin.

SOUND ABSORPTION (BS EN 20354:1993)

- Noise reduction coefficient (250- 2,000 Hz) is 0.21

130 255 515 1,025 2,025 4,047 Hz

- | | | | | | | | |
|----------|------|------|------|------|------|------|---------------------------|
| • Carpet | 0.01 | 0.30 | 0.10 | 0.27 | 0.42 | 0.41 | Coefficient of absorption |
|----------|------|------|------|------|------|------|---------------------------|

MOTHPROOFING (BS 4797:1972) (SIS 650220)

Prep is moth-resistant to the following standards:

- European Standards Australian
- Woolmark Levels 1 to 5
- New Zealand Woolmark WoNZ R1 to R3

ROLL SPECIFIC

- Description: Made from carded fibers formed into a continuous corrugation and bonded with PVC or latex to a hessian backing
- Materials: 80% Goat Hair (512 Dapple Grey, 538 Silver Birch and 587 Double Cream are manufactured using undyed goat hair), 15% Nylon, 5% Viscose.
- Warranties: Wear guarantee and a lifetime anti-ravel/ non-zipper guarantee (BS EN1307:2005 Class 33 LC2 contract wear)
- Dimensions: 6' 7" Roll Width
- Thickness: Approx. 1/4" (7mm)
- Weight: ca 2.75kg / sq. m
- Country of Manufacture: Ireland

TILE SPECIFIC

- Description: Prep Tile is made from carded fibres formed into a continuous corrugation and bonded to a PVC backing.
- Materials: Pile composition of carpet: 70% Goat Hair (512 Dapple Grey, 538 Silver Birch and 587 Double Cream are manufactured using undyed goat hair), 30% Nylon.
- Warranties: Wear Guarantee and a Lifetime Anti-Ravel/Non-Zipper Guarantee. BS EN 1307:2005 Class 33 LC2 Contract Wear
- Dimensions: Width: 19.6" x 19.6" (50cm x 50cm)
- Thickness: Approximately .314" (8mm)
- Weight: ca. 5 kg/m²
- Country of Manufacture: Germany