

## **BioCel™ / EnviroCel™ Cushion**

Polyurethane Carpet Backing

## **BioCel™ / EnviroCel™ Laminate**

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Commercial and hospitality carpet products with BioCel\* or EnviroCel\* polyurethane backings are produced by Universal Textile Technologies (UTT). Individual carpet manufacturers may require additional installation procedures. Failure to obtain and comply with other specific installation requirements may void important warranties extended by the carpet manufacturer. For assistance, contact UTT or your carpet manufacturer.

### **Before You Get Started**

**No Special Techniques Required** - Carpets with UTT polyurethane carpet backings are installed by conventional commercial broadloom techniques and require no special tools or materials. BioCel\* & EnviroCel\* polyurethane carpet backings have a non-woven outer surface.  
**Approved Installation Methods** - Carpet with UTT polyurethane backings have been expressly developed for indoor installations using the direct glue down method. Installation by any other methods will void important warranties extended to the carpet manufacturer.

Note: Consult with the carpet manufacturer before using any other installation method.

### **Job Site and General Conditions**

**Storage** – Store carpet and adhesives in dry area. Avoid product distortion in storage. Never stack carpet more than two rolls high or stand rolls on end.  
**Acclimation** - Bring carpet and adhesives into work space 24-hours before installation. Unroll carpet, allowing product to relax. HVAC and lighting systems must be in service. Maintain temperature between 65° and 95°F and maximum relative humidity 65%. Maintain these conditions 48-hours before installation, during and 72-hours after installation.  
**Subfloor Conditions** - Subfloor must be dry, level, and free from dirt, grease, oil, paint, sealer, old adhesives, and other residues. Repair or replace loose flooring substrates. Patch cracks in concrete subfloors with an approved latex patching compound mixed with latex additives, not water. For large areas requiring leveling, use a cementitious underlayment mix.  
**Concrete Moisture Content** - New concrete subfloors must be cured. All concrete subfloors, regardless of age, must be tested for excessive moisture content. Slab temperature must be above 55°F when tested. Use a Calcium Chloride Moisture Test Kit to obtain quantifiable results. Perform test in accordance with ASTM Test Method F1869. Consult carpet manufacturer for acceptable emission levels.

**Concrete Alkalinity Content** - Test all concrete new or old, for excessive alkalinity. Perform test in accordance with ASTM F-710. If pH exceeds 9, notify general contractor for corrective measures. Floor should be treated as outlined below before installation.

Note: To treat, wash floor with one part muriatic acid to 10 parts water; rinse floor twice with cold water; wait 24 hours and retest; repeat if necessary.

## **Planning and Layout**

**Dye Lots and Roll Orientation** - Avoid mixing dye lots in the same area. Orient carpet so the pile lies in the same manufacturing direction.

**Roll Sequence** - Always try to install production rolls in numerical sequence. For best pattern match and minimum textural variations, sequence cuts within roll.

**Patterned Carpets** - Best pattern match will come from cuts taken from the same carpet roll and/or dye lot. Plan ahead by verifying available lengths. Always allow extra carpet to compensate for pattern matching. Pattern carpets require the use of a knee kicker, mini stretcher (seam grabs), deadman, and power stretcher to assure best pattern alignment, including installations using the glue down method. Cut and layout carpet based on pattern variances to best minimize pattern match efforts. Pre-stretch carpet prior to installing for pattern elongation and always stretch short side to match long side pattern. Starting point should be dictated by type of pattern distortion.

Note: Under normal manufacturing tolerances, an acceptable pattern match should be obtainable. Consult the carpet manufacturer for normal pattern tolerances on specific products.

**Seam Diagram** - Prepare a seaming diagram in advance, observing the following general guidelines:

- Run seams lengthwise to major area(s).
- Run major seams parallel to, not across, traffic paths.
- Plan major seams so that natural or artificial light does not shine directly across them.
- Avoid seams at major pivot points.
- Avoid seams which intersect perpendicular to doorways and entrances.

Note: For seams, allow trimming approximately 1" to 1.5" of actual face material. Patterns may require additional trimming.

## **Cutting and Seaming**

Carpet with BioCel\* or EnviroCel\* polyurethane backings require seaming techniques similar to conventional commercial broadloom backing. Two methods are listed below. Consult the carpet manufacturer for their recommendations of specific products. Seam sealer is required.

**Preferred Method** - Row Cut/Row Cut - The preferred seam cutting method, especially for patterned products.

**Alternative Method** - Row Cut/Trace Cut - Primarily for non-patterned products or when the preferred method is not able to make an acceptable seam.

### **Seaming Tips**

- Use knee-kicker to position and flatten carpet.

- Use conventional row cutter with sharp blade to cut seams.
- Do not use factory edges for seams, trim in sufficient amount for good edge bond.
- Evaluate seam prior to installing.
- Recut seam if necessary to achieve desired appearance

## **Adhesive Application**

BioCel\* and EnviroCel\* polyurethane carpet backings are compatible with standard premium multi-purpose carpet adhesives and seam adhesives. **Installations using pressure sensitive adhesives are not recommended.** For specific product recommendation and application guidelines, contact your carpet and/or adhesive manufacturer. Be sure to provide proper ventilation when using carpet adhesives for optimum indoor air quality and consult the carpet manufacturer for information on newly formulated low emitting adhesive products that meet the CRI Green Label Program.

**Warning: Inadequate adhesive spread rate, improper application of adhesive, or use of low-grade adhesive products not intended for commercial usage may void important warranties extended by the carpet manufacturer.**

**Trowel Size** - With BioCel\* & EnviroCel\* polyurethane use a 3/32"x3/32"x3/32" V notch trowel. Maintain consistent notch size throughout installation. Patterns may require more adhesives.

**Apply Adhesive** - Apply recommended adhesive to subfloor working in manageable sections. Adhesive ridges should be of sufficient height to achieve full and complete coverage of the substrate and carpet backing. Observe manufacturer's instructions and allow recommended open or flash time to sustain proper transfer. To help speed up adhesive drying time, use high-speed fans.

## **Seam Sealing**

Carpets with BioCel\* or EnviroCel\* polyurethane carpet backings **require seam sealing** for edge-ravel and delamination properties.

**Seam Sealing** - Use an applicator or plastic squeeze bottle with an adjustable nozzle and apply an 1/8" bead of recommended seam adhesive to the edge of the first length seam at the primary backing level. Using the proper amount will ensure tight seams. Exercise care to prevent seam adhesive from getting on the carpet face.

**Remove Excess Seam Adhesive** - Seam adhesive will transfer to the adjoining edge and seal the seam. Remove excess seam adhesive along seams with a recommended cleaning solvent using a white cloth. Do not flood seam with cleaning solvent. Follow manufacturer's instructions regarding proper use of solvent.

## **Installation Complete**

**Roll Surface** - Roll entire installation with a 75 lb. carpet roller.

**Trim Perimeters** - Use a wall trimmer or carpet knife to trim along wall edge.

**Transition Strips** - To prevent edge raveling at transition borders (wherever carpet meets hard surface flooring), transition strips are required.

## Stairs

**Stairs with Nosing** - Carpet should be installed with one piece covering tread and nosing and another piece covering the riser. Measure both left and right sides of each step accordingly. A 3/4" minimum rounded edge nosing is recommended.

**Stairs without Nosing** - Carpet should be installed in a single piece covering both tread and riser. Measure both left and right sides of each step accordingly.

Note: When installing on straight stairs, for maximum adhesion use a non-flammable permanent contact adhesive on the nosing, carrying over 2-3" on the tread and riser. Apply the same adhesive to the corresponding area on the back of the pre-cut carpet.

## After Installation

**Vacuuming** - Before the area is occupied, the entire installation should be vacuumed with an upright, cylindrical brush type vacuum cleaner.

**Wiring Cut-Outs** - Normally electrical and communications floor outlets are connected after the installation. If so, install directly over boxes and surface-mark with tape. Cut-outs can be made later.

**Protect Until Occupancy** - Protect carpet from other tradespeople and heavy traffic until occupancy. If furniture or other equipment is to be rolled over installation provide plywood or masonite sheets in traffic paths. Plastic film should not be used as carpet protection as it retards adhesive curing.

Note: Failure to provide adequate protection until occupancy especially if carpet is installed before the work of all tradespeople has been completed, may result in damage and deterioration, and may void important warranties extended by the carpet manufacturer.

**Hot Water Extraction** - As with any direct glue-down installation, to ensure complete adhesive curing, do not hot water extract for at least 30 days.

**Minor Repairs** - Minor disfigurements such as cigarette burns often can be repaired by the circle cutting technique: (1) always check replacement material for exact color match; (2) remove damaged area with circle cutter; (3) cut a replacement of the same diameter; (4) apply seam adhesive to the perimeter of the patch; (5) align pile or pattern direction and press firmly into place.

For additional information:

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