



# The Mohawk Group

## Troubleshooting Guide for Unibond

 The Mohawk Group

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KARASTAN

LEES

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# Unibond® by Lees

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## Troubleshooting Guide

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### NOTE //

Some bubbles will almost always appear in a Unibond installation. This is normal. Follow the steaming procedure below to correct air bubbles.

### NOTE //

An impervious surface (like ceramic or vinyl tile) will always require more open time than a porous surface (like concrete or wood).

### IMPORTANT //

Do not over-roll the carpet.

## BUBBLES

- Lees Wet Set Adhesive should have been used.
- The type of surface (or substrate) is important. A porous surface with Wet Set" requires no open time. A non-porous surface requires 15 minutes open time.
- Moisture should not exceed five pounds/1000sf per 24 hours as determined by a calcium chloride test per ASTM F1869, or 80% relative humidity per ASTM F2170. If the concrete test higher than 5 lbs or contains more than 80% RH, stop installation and contact Field Services @ 800.833.6954. Gypcrete or substrates with excessive dust must be cleaned, then primed with TMG's Primecoat or an approved primer, such as a latex milk additive.
- The alkalinity or pH in a concrete slab should be between 5 and 9 for a direct glue-down installation. If the concrete test higher than 9, stop and contact Field Services @ 800.833.6954.
- Lees Wet Set requires the use of a 1/8" x 1/8" x 1/16" V notch trowel, or a 1/8" x 1/8" x 1/8" U notch trowel. Too little adhesive applied to the substrate can result in improper adhesion of the backing to the sub-floor.
- Unibond should be rolled with a 75 - 100 pound roller once after installation. If the carpet was not rolled, bubbles will form. These bubbles can be corrected using the steaming procedure below.

### NOTE //

Leaving the steamer on the carpet for too long or not using a towel on the face of the carpet can cause the face yarn of the carpet to darken.

### NOTE //

Use either a 35 - 50 pound roller or a hand tractor depending on the size of the bubble or crease, or a hand tractor for correcting pile distortions.

## STEAMING

Steaming can correct anything from bubbles and creases to roll crush of the face yarn. Lees recommends that anyone who installs Unibond carpets have a steamer in their possession.

1. Use a wallpaper steamer with a plastic head (approximately 1' square works best).
2. Add 10 ounces of white vinegar per each gallon of water to the steamer's reservoir.
3. Place a white cotton cloth on the carpet prior to placing the head of the steamer on the area to be steamed.
4. Leave the steamer on the affected area for about 30-45 seconds.
5. Remove the steamer and roll the steamed area with a smooth wheel roller or a hand tractor. Be sure and roll in the direction of the grain of the yarn.

If the bubbles or creases reappear after steaming, there is a possibility that there may not be enough adhesive under the area to grab the carpet once it has relaxed.



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## CROSS SEAMS / PEAKING SEAMS

1. Do not apply the adhesive closer than two inches from the seam.
2. Reverse roll the edges to subdue the curl, relieve tension, and facilitate cutting.
3. Use a suitable edge-trimming technique that will produce a tight, but slightly peaked seam.
4. Bend back both carpet edges, then spread the adhesive.
5. Allow the predetermined open time, then press the edges into the adhesive and roll.
6. The edges may curl slightly; this is normal. If this occurs, pull the edges up about two to four inches to expose the adhesive to the air. Wait a few minutes, touch adhesive lightly and repeat until no adhesive transfers. Place the edges back into the adhesive and roll the seams with a small seam roller.
7. Do not allow the adhesive to dry completely' or the carpet will not re-bond to the floor.
8. If the edges still have a tendency to curl, use a steamer (see page I for description of steamers) to help relax the backing of the carpet. Put a towel on the face of the carpet, then set the steamer on the towel. Move the steamer with the towel along the seam, allowing it to sit for about one minute in each area, then roll with a hand tractor or light-weight roller. Place weight on the area for 24 hours to keep the carpet in contact with the adhesive as it sets up.
9. If the seam still curls, this may mean that there is a problem with the subfloor (i.e., moisture, alkalinity, incompatible curing compounds or sealers). Consult page one for proper moisture and alkalinity levels. It may also indicate that the seam may need to be re-cut. Trim back one row at the seam to allow the carpet to lay smooth and flat at the seam.

### NOTE //

On impervious floors, the adhesive must be given proper open time for the moisture to evaporate or the seam will pop up.

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## ADHESIVE NOT STICKING

- If the adhesive is not sticking to the substrate, that usually indicates an improperly prepared substrate. It is also a possible indication of a moisture problem.
- If the adhesive is not sticking to carpet, you may be using too small of a notched trowel or a trowel with too wide of a space in between the notches. There is also the possibility of the adhesive setting up too long prior to the carpet being laid into it. To correct this, steam the areas where the carpet is not adhering to the adhesive (see the instructions on the preceding page) or add more adhesive with the proper notch trowel (1/8" x 1/8" x 1/16" V notch or 1/8" x 1/8" x 1/8" U notch).

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## CARPET PROTECTION

- Protect the carpet edges with a vinyl or metal strip fastened securely to the floor.
- Protect the installation from heavy traffic (e.g., wheeled traffic, moving furniture on the installation, etc.) for a minimum of 24 hours.
- Plastic film or sheeting should not be used as carpet protection because it retards adhesive curing. Use a non-staining building paper.
- If heavy furniture will be rolled over a new installation, use plywood or Masonite sheets to protect the carpet.
- To allow the adhesive to fully cure, do not deep clean the carpet with wet cleaning methods (hot water extraction/steam cleaning) for 30 days after installation. Spot cleaning is acceptable.

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## CREASES / PILE CRUSH

- Shipping can cause creases and pile crush in Unibond carpets. Most crush marks will walk out within a few weeks to a few months after installation (based on how long the carpet was stored).
- Improper handling can also cause creases in Unibond carpets. This occurs during installation when carpet is folded back and gluing begins. Often care is not taken to prevent creases or someone steps on the folds of the carpet creating a hard crease.
- Creases or buckles can be caused in Unibond carpets by moving heavy furniture or rolling traffic over the installation before the adhesive has completely set up. Restrict traffic and do not move furniture over a new installation for at least 24 hours.
- When cut in the sun, the resin becomes soft, similar to the molten state when it is applied. Once it hits the cool air inside the building, the creases are "set" into the thermoplastic. To alleviate this problem, put a carpet core in the roll prior to rolling and carrying in. Once inside, allow the carpet to climatize before laying out or before bending to put into an elevator.

### NOTE //

Steaming can correct both bubbles and creases. See the instructions on page 1 of this guide.

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## FACTORS THAT AFFECT ADHESIVE SET-UP

Lees Wet Set Adhesive is a premium, high-solids carpet adhesive designed for the permanent installation of all heavy-backed commercial carpets, such as Lees Unibond hot-melt backing. There are several factors that influence the set-up time of adhesive:

### Porosity of Floor

In other words, the ability of the floor to absorb moisture from the adhesive. The more non-porous a floor, the longer the set-up time. Nonporous floors are tile, linoleum, sealed concrete, terrazzo, marble, and concrete with old carpet adhesive. The most common types of porous floors are unsealed plywood and concrete. **Recommendation:** Nonporous floors require an open time for the Wet Set Adhesive. Humidity will affect the time, but usually 10 to 15 minutes is sufficient. A leg of 1 to 1-½-inches indicates sufficient time.

### Humidity

The amount of moisture in the air at a given temperature. The relative humidity influences the rate at which moisture can evaporate from the adhesive. The higher the humidity, the longer the set up time. **Recommendation:** Reduce the humidity in the air by increasing air temperature, cooling the air in the summertime, or circulating the air.

### Carpet Backing

The more non-porous the carpet backing, the longer the set up time. Synthetic backings such as Unibond, Action-Bac, and vinyl require longer set up time compared to porous backings such as jute or felt. **Recommendation:** Unibond is non-porous, so allow a longer open time, increase the room temperature, and reduce the humidity.

### Trowel Size

The metering device for most adhesives is extremely important. Trowel notches that are deep and wide use more adhesive and, therefore, need more set up time. The recommended trowel size for Wet Set Adhesive is 1/8" x 1/8" x 1/16" V notch or 1/8" x 1/8" x 1/8" U trowel. An installer must use the recommended trowel size for a successful installation. **Recommendation:** You must use the correct size of trowel at all times. Trowel edges are worn down quickly, so you must renotch the trowel as needed.

### Temperature of the Adhesive

Cold adhesive has a longer set up time and is thicker and more unstable than warm adhesive. **Recommendation:** Condition the installation site, the adhesives, and the carpet for a minimum of 24 hours at 65° to 95° F.

### Open Time

The amount of time that an installer has before the adhesive no longer transfers to the floor covering backing. **Recommendation:** When installing a non-porous backed floor covering or installing over a nonporous floor, the adhesive must receive a longer open time.