# Wood Flooring Moisture regulator / Wood Floor Bonding

**Project** Tommy Hilfiger Canada Retail Stores

Market segment Commercial Buildings – Retail

Background High moisture levels in concrete slab on grade caused wood flooring to expand, buckle and delaminate in certain areas.

Problem Eliminate infiltration of moisture originating from concrete slab.

Solution Sika® Primer MB<sup>cA</sup>, Epoxy-Based Moisture Barrier. SikaBond®-T54, Solvent-Free Polyurethane Adhesive. SikaBond®-T55, Low VOC Polyurethane Adhesive.

# Amazing! Moisture barrier allows installation of wood flooring over damp concrete slabs!



The wood flooring installed in a retail outlet began to buckle and delaminate in certain areas just a few months following the store opening. Unfortunately, this problem also occurred in several other new Tommy Hilfiger retail outlets. The wood flooring was installed over a concrete slab on grade that appeared to be dry. However, several later, testing showed that moisture levels in the concrete slab were too high for most moisturesensitive finishes. This serious problem need to be addressed immedately.

It was at that time that Sika Canada Inc. was approached to help solve the problem. After extensive fact-finding research, Sika Canada Inc. recommended a solution which has since been used in Tommy Hilfiger stores with optimal results.

Sika's action plan:

- Remove all existing wood flooring.
- Use a Tramex electrical impedance moisturemeter to measure moisture levels in the concrete slab.
- Prepare surface for application of moisture regulator by using the shotblasting method to remove any adhesive residue on the concrete slab and to open the pores.
- Vacuum concrete slab and let dry for 24 hours.
- Apply a coat of Sika® Primer MB<sup>ca</sup> over entire floor area. Sika® Primer MB<sup>ca</sup> regulates infiltration of moisture in cementitious substrates with a moisture content between 4 and 6%.
- Apply a second coat of Sika<sup>®</sup> Primer MB<sup>CA</sup> on the following day and let dry for 24 hours.
- Re-install wood flooring using Sikabond®-T54 or Sikabond®-T55.

All Tommy Hilfiger of Canada retail stores now rely on Sika Canada's expertise and use the Sika solution (Sika® Primer MB<sup>CA</sup> and SikaBond®T-54 or SikaBond®T-55) for their wood flooring bonding requirements.





### **Products used**

#### Sika® Primer MB<sup>CA</sup>

Two-component epoxy primer applied on substrate to protect wood flooring finishes from substrate moisture infiltration.

- Control of moisture infiltration.
- Solvent free and no VOC (100% solids).
- Easy roller application.
- Shorter construction periods.
- Excellent penetration and stabilization of the substrate.
- Reduction of adhesive consumption.
- Suitable for existing substrates, with proper surface preparation.
- Compatible with in-floor radiant heating systems.
- Low viscosity.
- Compatible with all SikaBond® wood flooring adhesives.

#### SikaBond®-T54

and

SikaBond®-T55

Single component, solvent-free and no VOC, ultra resistant polyurethane adhesive, with permanent elasticity, used for full bonding of wood floorings.

Single component, solvent-free and low VOC content, ultra-resistant polyurethane adhesive, with permanent elasticity, used for full bonding of wood floorings.

- Full bonding of engineered and solid wood floorings.
- Very easy to spread.
- Fast curing allows sanding of non-finished wood floorings after 18 hours.
- Permanent elasticity expansion and contraction of flooring does not damage bond.
- Compatible with in-floor radiant heating systems.

## Other products

#### Sika<sup>®</sup>AcouBond Products

Elastic Bonding and Sound Dampening for Wood Floors.

The system is made of:

- SikaLayer-03, a 3 mm proprietary specially slotted foam mat.
- SikaBond®-T53 or SikaBond®-T52, two unique adhesives which are permanently elastic, for a tenacious bond to wood flooring.
- FIIC 59
- FSTC 59
- The only sound dampening system for use with wood floorings bonded directly to concrete.
- Single step application method reduces time and cost up to 30%.
- Very easy to install; also eliminates labor-intensive installation of cork or other underlayments.
- Can be walked on during installation.



#### Alberta