



Form #12

ABRASIVE ACTION II ER3 MODULAR & POWERBOND MOISTURE AND ADHESIVE INSTALLATION REQUIREMENTS

General Notes

If you have any questions concerning the proper installation (or use) of any Tandus Centiva products, please contact Tandus Centiva Installation Services at 800-241-4902, ext. 2625, 2623, 2129, 2023, or 2670. **It is solely the responsibility of the installation contractor to insure that the sub-floor is properly prepared prior to installation.**

Moisture & pH-ER3 Modular

Excessive moisture and/or high pH on any sub-floor, especially concrete, can cause product failure. For Tandus Centiva's ER3 Modular product, the maximum allowable moisture vapor emission rate (MVER) from the sub-floor is 5.0 pounds, as tested according to ASTM F-1869-04 (Std. Test method for measuring Moisture Emission Rate of Concrete). The required pH range is 9.0 or less as tested according to ASTM F-710-05. The In-Situ/RH (relative humidity) requirement on concrete is not to exceed 80% as tested according to ASTM F-2170-02 (Std. Test method for measuring Relative Humidity in Concrete). When using ER3 modular, Tandus Centiva requires that at least 1 MVER and 2 RH tests be performed on the initial 1000 sq ft of each project. In addition, a minimum of one test, alternating between MVER and RH, per 1000 sq ft is required for the balance of the project. **When In-Situ RH testing has been eliminated from the test protocol, the Maximum Allowable MVER for the ER3 Modular will revert to 3 lbs/24hr/1,000 sq ft**. Refer to our Technical Services Bulletin "Moisture and pH Testing of Tandus Centiva Products" for specific instructions on test methods, ambient conditions, and other requirements.

Moisture & pH-Powerbond Cushion, Condensed, and ER3

Excessive moisture and/or high pH on any sub-floor, especially concrete, can cause product failure. For Tandus Centiva Powerbond products, the maximum allowable moisture vapor emission rate (MVER) from the sub-floor is 5.0 pounds, as tested according to ASTM F-1869-04 (Std. Test method for measuring Moisture Emission Rate of Concrete). The required pH range is 9.0 or less as tested according to ASTM F-710-05. The In-Situ/RH (relative humidity) requirement on concrete is not to exceed 80% as tested according to ASTM F-2170-02 (Std. Test method for measuring Relative Humidity in Concrete). When using Powerbond Cushion in conjunction with #54 Seam Weld or C-XL Water Based seam sealer, the maximum allowable MVER from the sub-floor is 10.0 pounds and the maximum allowable RH for concrete substrates is 90%. When using Powerbond Cushion and Powerbond Medfloor, Tandus Centiva requires that at least 1 MVER and 2 RH tests be performed on the initial 1000 sq ft of each project. In addition, a minimum of one test, alternating between MVER and RH, per 1000 sq ft is required for the balance of the project. **When In-Situ RH testing has been eliminated from the test protocol, the Maximum Allowable MVER for the Powerbond Cushion and Powerbond Medfloor will revert to 3 lbs/24hr/1,000 sq ft**. Refer to our Technical Services Bulletin "Moisture and pH Testing of Tandus Centiva Products" for specific instructions on test methods, ambient conditions, and other requirements.

Note that moisture vapor emission testing, relative humidity, and pH testing indicate the moisture level and pH of the concrete sub-floor at the time of installation. These tests do not provide static results and both moisture and pH can increase over time. Tandus Centiva is not responsible for product failure as a result of changes to sub floor conditions, including increases in moisture or pH levels, post installation. Experience has shown that more accurate and representative MVER, RH and pH testing results can be achieved when the HVAC system is functioning 24/7 for two weeks prior to installation and the indoor air quality has acclimated to occupancy conditions. In cases where the flooring substrate is light weight concrete, or is a Gypsum based leveling compound used as a topcoat over existing concrete, MVER results are not an accurate means of evaluating the conditions of the flooring substrate; therefore, RH will be the only recognized moisture test method.

pH Testing

Preparing the surface of a concrete slab for pH testing requires the following attention to detail. Make sure the concrete surface is adequately cleaned of any adhesives, primers, curing compounds, surface contaminants, etc. Exercise care not to over clean the surface of the concrete removing the thin layer of carbonation. This can result in higher, non-responsive pH readings. Slightly wet the concrete sub-floor surface with a small amount of distilled water and allow the water to stand for one minute. Apply pH test paper to the wet concrete surface and allow the pH test paper to remain in contact with the wet area for one minute. The pH test paper will change color depending on the pH of the wetted surface and a color scale is provided with the pH test papers for comparison. Note pH test paper commonly supplied in MVER test kits only measures up to a pH of 12 accurately.

Installation of Tandus Centiva products on sub-floor conditions that exceed the specifications and limitations provided in this document will void the applicable limited warranties. Tandus Centiva does not represent or make any express or implied warranties that Tandus Centiva products will or will not affect, prevent or cure any other moisture or alkalinity-related issues that may arise because of the moisture and alkalinity levels found in the concrete. Tandus Centiva expressly disclaims such express or implied representations or warranties.

Conditions of Use

Abrasive Action II ER3 modular tile should not be used in areas where moisture intrusion from the surface would occur as a condition of usage. Entry areas, enclosed vestibules, and others areas subjected to frequent wet track in, snow walk off, or where any moisture intrusion can occur at the seams or sides of the tiles is not an acceptable application for Abrasive Action II ER3 Modular Tile. In applications where the above conditions exist Abrasive Action II Powerbond Cushion should be used and installed in accordance with the POWERBOND CUSHION INSTALLATION & FLOOR PREPARATION INSTRUCTIONS.*

Adhesive & Requirements

For interior applications subjected to normal usage and limited exposure to moisture from any external sources the applicable Tandus Centiva Adhesive for ER3 tile is C-14 or C-EX. C-EX may be used when a stronger bond to the floor is more desirable. *Primer is not suggested to be used with C-EX Adhesive over new concrete.* C-TR is the only approved adhesive for use with Abrasive Action II modular or Abrasive Action II Powerbond in applications subjected to wet traffic or where the exposure to moisture from external sources exceeds the normal conditions of usage in an interior installation. C-TR must be troweled on with a 1/16 x 1/16 x 1/16 V notch trowel. If existing adhesive is present it must be removed so that only trace amounts are present before the application of either of these Tandus Centiva adhesives.

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