

Checking for moisture vapor transmission through a concrete subfloor (regardless of concrete age) prior to flooring installation is required for warranty consideration using Nydree Flooring UP-28-0VOC adhesive. High levels of moisture vapor passing through the concrete could lead to buckling, cupping, poor adhesive bond, discoloration and other moisture related problems if the proper installation methods are not followed.

Two moisture tests that are currently being accepted by Nydree and throughout the flooring industry are the Calcium Chloride Moisture Test and the Insitu Relative Humidity Moisture Test. The preferred moisture testing method is Insitu Relative Humidity, since it can identify potential moisture problems deep within a concrete slab. If both tests are performed, the insitu RH test is always the qualifying standard.

The Calcium Chloride Moisture Test is a standard ASTM procedure (ASTM F1869) that measures the amount of moisture (in lbs.) coming through a concrete slab over a 1000 square foot area during a 24 hour period. Calcium Chloride test kits are available through Nydree Customer Service @ 800.682.5698 or contact Taylor Tools at 800.525.3714 to find a local distributor. Three kits are required for the first 1,000 square feet of subfloor and one additional test kit is required for every additional 1,000 square feet.

The Insitu Relative Humidity Moisture Test is a standard ASTM procedure (ASTM F2170) that measures relative humidity levels within a concrete slab. Three tests are required for the first 1,000 square feet of subfloor and one additional test is required for every additional 1000 square feet. Nydree recommends Rapid RH<sup>®</sup> 4.0 testing units made by Wagner Meters. See [www.wagnermeters.com](http://www.wagnermeters.com) for product information and to locate a distributor.

Calcium Chloride and Insitu Relative Humidity test results are an installers best insurance against liability for installation failures due to moisture vapor emission.

#### **Calcium Chloride Test and Insitu Relative Humidity Results – Direct Bonding to Concrete**

If all Calcium Chloride test results are less than 8 lbs./1000 square feet/24 hours or all Insitu Relative Humidity results are less than 85%, then only Nydree Flooring UP-28-0VOC adhesive should be used to install the flooring.

If any Calcium Chloride test is equal to or greater than 8 lbs./1000 square feet/24 hours or Insitu Relative Humidity results are equal to or greater than 85% or if there is concern over future moisture issues, then Nydree Flooring OVR-8 Self-Leveling Moisture Retarder must be used prior to installing the flooring with UP-28-0VOC adhesive. See OVR-8 Installation Instructions at [www.nydreeflooring.com](http://www.nydreeflooring.com) or refer to label on container for complete details. Other moisture retarders can and have been used successfully, but keep in mind that any subfloor moisture warranty then falls on that particular manufacturer.

#### **Calcium Chloride Test and Insitu Relative Humidity Results – Acoustical Underlayments**

If any Calcium Chloride test is equal/greater than 3 lbs. or any insitu relative humidity test is equal/greater than 75%, then acoustical underlayment can not be used. Cork/Rubber acoustical underlayment manufacturers require that concrete be less than 3 lbs. calcium chloride or less than 75% insitu relative humidity.

If there are any questions with regard to slab conditions, please contact Nydree Technical Services at 800.682.5698.