



## All Nydree Engineered Flooring Products Concrete Subfloor using MRA1585 Adhesive Moisture Testing – Calcium Chloride and In-situ Relative Humidity

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 MRA1585 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 In-situ Relative Humidity Moisture Test. The preferred moisture testing method is In-situ Relative Humidity, since it can identify potential moisture problems deep within a concrete slab. If both tests are performed, the in-situ 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 In-situ 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 In-situ Relative Humidity test results are an installers best insurance against liability for installation failures due to moisture vapor emission.

### Calcium Chloride Test and In-situ Relative Humidity Results – Direct Bonding to Concrete

Slab concrete moisture test results determine the application rate of the MRA1585 moisture retarding adhesive.

Calcium Chloride results up to 15 lbs./1000 sf/24 hrs and in-situ Relative Humidity results up to 85%. The adhesive is applied with a 3/16" x 5/32" V-Notch trowel at a rate that does not exceed 50 square feet per gallon.

Any Calcium Chloride result **greater** than 15 lbs./1000 sf/24 hrs or any in-situ Relative Humidity result **greater** than 85%. The adhesive is applied with a 1/4" x 3/16" V-Notch trowel at a rate that does not exceed 35 square feet per gallon.

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

If any Calcium Chloride test is equal/greater than 3 lbs. or any in-situ 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% in-situ relative humidity.

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