

# **SUBSTRATE PREPARATION FOR HYDRASTIX SEALERS AND COATINGS FOR FLOOR COVERING INSTALLATIONS**

The jobsite must be completely closed-in and conditioned with permanent HVAC in operation before beginning the installation process or before any substrate testing or preparations are performed. The jobsite, along with the floor covering materials and adhesive, must be acclimated to a temperature between 65°F and 85°F and air humidity from 40% to 65% for at least 48 hours before, during, and continuously after the testing, preparations, and final installation.

**Concrete Substrate Requirements:** All concrete substrates must adhere to ASTM F710 standards. XL Brands does not warranty XL Brands products used on substrates where silicates have been applied topical or entrained or where adhesive cleaners or removers have been applied. Warranties for defective or dimensionally unstable floor covering, substrates and underlayments lie with the manufacturer of those products and not with XL Brands.

Concrete must be fully cured, dry to the touch, absorbent (drops of water must soak in within five (5) minutes), free of; dust, dirt, wax, paint, curing compounds, fire retardant chemicals, fungicides, release agents, sealers, or any other foreign substances that might interfere with a good bond.

A proper surface ready to receive the specified coating must be properly cleaned of contaminants. (Concrete must be free of; dust, dirt, wax, paint, old adhesive, curing compounds, fire retardant chemicals, fungicides, release agents, sealers, or any other foreign substances that might interfere with a good bond.) All old adhesive residues, including cutback adhesive, must be completely removed by mechanical means to open the concrete and render it absorbent. A mechanically prepared surface can be accomplished in the following ways; abrasive (sand) blasting, grinding or sanding. The concrete surface profile (CSP) must be between 1-2 to ensure a proper bond. Substrate must be level to 3/16" in a 10 ft. span (5 mm in a 3m span). Proper substrate preparation is the sole responsibility of the contractor/installer. Jobsite conditions should be recorded before conducting moisture testing and prior to installation. This can be achieved by using a standard thermometer, infrared pyrometer, and hydrometer to measure ambient temperature, slab temperature, and ambient Relative Humidity. Dew point, as it relates to interior moisture condensation, is an important factor for ensuring that proper conditions exist before and during substrate testing, preparations, and floor covering installations. The interior air temperature and Relative Humidity must be maintained between 65-85° F and 40-65% RH, and **the substrate temperature should be at least 5 degrees F. higher than the Dew Point.** Monitoring the substrate temperature, indoor temperature and ambient RH, and utilizing fans and/or dehumidifiers as needed will help correct or prevent existing or possible Dew Point conditions until the installation is complete.

**Moisture and pH testing must always be performed on concrete substrates on every grade level. Moisture testing is specified to be performed using the latest versions of the following methods:**

- **ASTM F2170; in-situ relative humidity test to measure the internal humidity in the concrete.**
- **ASTM F2659; substrate surface moisture using an electronic impedance moisture meter.**

Impedance meter testing (refer to ASTM F2659) is required due to issues related to topical moisture from Dew Point conditions. Substrate surfaces should not read over 4% on the impedance meter for any adhesive application. In the event of an installation claim that may be moisture related, impedance meter testing on the substrate will be performed. Substrate surface moisture readings found to be above the 4% acceptable range may void the warranty.

Any cracks, holes or other substrate irregularities should be repaired using a good Portland cement based product in strict compliance with the manufacturer's guidelines. Concrete substrates should be smooth and flat within the tolerances as described in current ASTM F710 Paragraph 4.6, per ACI 117R, or as measured by the method described in ASTM E1155, or any industry recognized method as specified by the floor covering manufacturer.

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