

GENERAL

Excess moisture in concrete slabs and screeds can compromise the performance and longevity of liquid-applied membrane systems. Moisture-related failures may include adhesion loss, blistering, delamination, surface defects, microbial growth, and structural deterioration. To ensure substrate suitability, a thorough moisture evaluation is required. WestWood systems must not be applied until the substrate is confirmed to meet acceptable moisture content thresholds.

RECOMMENDED GUIDELINES

WestWood requires that concrete substrates exhibit a maximum moisture content of 6% by mass or 75% relative humidity (RH) prior to membrane application. Responsibility for verifying substrate conditions lies with the contractor, and testing should be performed prior to the application of any system component. Field moisture testing should be conducted at a minimum frequency of three (3) tests per 5000 ft² (464.5 m²) or as otherwise warranted by site conditions.

FIELD MOISTURE AND RELATIVE HUMIDITY TESTING

Acceptable moisture levels may be determined using recognized methods and certified electronic RH/moisture meters. These instruments enable rapid, non-destructive in-situ evaluation of:

- Moisture content within the concrete or gypsum substrate
- In-slab RH, temperature, and dew point (via embedded probes or RH hood testing)
- Ambient RH, temperature, and dew point of the installation environment

Measurement tools commonly utilize principles such as electrical impedance, capacitance, or hygrometric sensing. Some incorporate microcontrollers to interpret sensor data and calculate RH, temperature, and dew point with a high degree of precision.

RECOMMENDED EQUIPMENT

WestWood recommends use of electronic hand-held moisture/RH meters with pinless measurement capability or embedded probe systems capable of reading at least ¾" depth. Instruments should be calibrated to measure:

- Moisture content
- Relative humidity
- Temperature
- Dew point

The following devices have been evaluated and are considered suitable for concrete and gypsum-based substrates:

- Tramex Concrete RH Moisture Content and RH Meter
- Tramex Concrete Moisture Encounter 4
- Wagner Meters Concrete C575
- Elcometer 7420 Digital Moisture Meter
- Delmhorst AccuScan



ROOFING SOLUTIONS



WATERPROOFING



FLASHING SOLUTIONS



TRAFFICABLE SURFACES