

# Digital Hygrometer Moisture Tester

# **USER INSTRUCTIONS**

Further information on all Tilemaster products, including those mentioned in these instructions, can be found on the respective Technical Data Sheets, on the Tilemaster Adhesives website www.tilemasteradhesives.co.uk

If any of the information detailed in this instruction leaflet is unclear or further clarification is required, please contact the Tilemaster office on **01772 456831** 

The information contained within this instruction leaflet is given voluntarily and in good faith. It is to the best of our knowledge true and accurate; however, it may contain information which is inappropriate under certain conditions of use. The company cannot accept responsibility for any loss or damage due to inappropriate use or the possibility of variations of working conditions and of workmanship outside our control.

Where a wooden floor covering is to be used, the acceptable moisture content of the substrate must be checked and confirmed with the wooden flooring manufacturer prior to installation.

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# Tilemaster Hygrometer User Instructions

#### HYGROMETER MOISTURE TESTING

The Tilemaster Hygrometer is an instrument designed to indicate the moisture content of a subfloor in Relative Humidity (RH) prior to installing floor coverings. The subfloor can be considered dry when reaching the desired RH level and is within the parameters set out below for installation of the respective Tilemaster Adhesives product to the surface

#### PRIOR TO TESTING

Ensure the surface is free from all dust dirt, oil, grease and any other contaminants that may affect adhesion of the Tilemaster Hygrometer to the substrate. Contaminants on the surface may lead to false moisture readings being obtained.

All surface laitance must be removed from the substrate prior to beginning the test. Surface laitance that remains on the substrate may result in artificially low moisture readings as this layer of material will prevent full moisture escape from the substrate.

Screeds that are applied over underfloor heating must have the system commissioned and taken through its full thermal cycle prior to moisture testing. Underfloor heating systems must then be turned off 48 hours prior to the moisture testing taking place. Underfloor heating that remains turned on may result in artificially high moisture readings, as the underfloor heating system will drive moisture through to the surface of the substrate.

#### **HOW TO TEST**

Adhere the provided butyl rubber tape to the underside of the Tilemaster Hygrometer around the perimeter of the box. Ensure that all tape edges meet in the corners to create an airtight seal between the substrate and the Tilemaster Hygrometer.

Place the Tilemaster Hygrometer onto the floor and press firmly into place, ensuring a good, solid bond has been achieved between the Tilemaster Hygrometer and the substrate.

The Tilemaster Hygrometer must remain turned off and allowed to reach equilibrium (consistent temperature and conditions) with the substrate before operation. Once sufficient time has passed, the Tilemaster Hygrometer can be turned on and moisture readings can begin to be taken.

# Testing - Substrates Without Underfloor Heating

Sand & Cement Screeds / Concrete – Ceramic, Porcelain & Natural Stone Tiles

#### Moisture Readings Up To 95% RH

If the substrate requires levelling and / or smoothing prior to works commencing, one of Tilemaster's moisture tolerant compounds must be used to make good the substrate. If the screed is 'a green screed' then the levelling / smoothing will need to be undertaken using either Tilemaster Pro Flow or Tilemaster Super Flow 30.

Moisture readings that are reading up to 95% RH must have Tilemaster Ultimate used to install the tiles. Consideration must be given however to the suitability of natural stone tiles onto a 'green' screed.

#### Moisture Readings Up To 75% RH

If the substrate requires levelling and / or smoothing prior to works commencing, a suitable Tilemaster smoothing and levelling compound must be used to make good the substrate.

Where the moisture readings are up to 75% RH, a suitable Tilemaster cementitious adhesive can be used to install the tiles

### Sand & Cement Screeds / Concrete - Resilient Floorcoverings (LVT, Carpet etc.)

#### Moisture Readings Up To 98% RH

Tilemaster FAST One Coat DPM must be applied to the substrate prior to works commencing. If the substrate requires levelling and / or smoothing prior to works commencing, Tilemaster Pro Flow or Tilemaster Super Flow 30 must be used to make good the substrate.

Following the application of Tilemaster FAST One Coat DPM and a subsequent coat of Tilemaster Prime+ Grip, the surface can be smoothed with a suitable Tilemaster smoothing and levelling compound prior to installation of floor coverings.

#### Moisture Readings Up To 75% RH

Use a suitable Tilemaster smoothing and levelling compound to smooth the substrate prior to works commencing.

Anhydrite / Hemihydrate / Calcium Sulphate / Gypsum – Ceramic, Porcelain & Natural Stone Tiles

#### Moisture Readings Up To 85% RH

If the substrate requires levelling and / or smoothing prior to works commencing, Tilemaster AnhyLevel must be used to make good the substrate,

Moisture readings that are reading up to 85% RH must have Tilemaster AnhyFix used to install the tiles.

Where timings do not allow for the moisture in the screed to reach 85% RH, Tilemaster FAST One Coat DPM can be used on prepared calcium sulphate screeds when the moisture is at 95% RH or less.

Anhydrite / Hemihydrate / Calcium Sulphate / Gypsum – Resilient Floorcoverings (LVT, Carpet etc.)

#### Moisture Readings Above 95% RH

Not suitable for installation. Contact the Tilemaster office on 01772 456831 for further information.

#### Moisture Readings Up To 95% RH

Tilemaster FAST One Coat DPM must be applied to the substrate prior to works commencing.

Following the application of Tilemaster FAST One Coat DPM and a subsequent coat of Tilemaster Prime+ Grip, the surface can be smoothed with a suitable Tilemaster smoothing and levelling compound prior to installation of floor coverings.

#### Moisture Readings Up To 75% RH

Tilemaster AnhyLevel must be used to smooth the substrate prior to works commencing.

# Testing - Substrates With Underfloor Heating

Sand / Cement Screeds / Concrete – Ceramic, Porcelain & Natural Stone Tiles

#### Moisture Readings Up To 95% RH

If the substrate requires levelling and / or smoothing prior to works commencing, one of Tilemaster's moisture tolerant compounds must be used to make good the substrate. If the screed is 'a green screed' then the levelling / smoothing will need to be undertaken using either Tilemaster Pro Flow or Tilemaster Super Flow 30.

Moisture readings that are reading up to 95% RH must have Tilemaster Ultimate used to install the tiles. Consideration must be given however to the suitability of Natural Stone tiles onto a 'green' screed.

The use of an uncoupling / decoupling membrane should be considered for all installations onto screeds that contain underfloor heating. It is essential to install an uncoupling / decoupling membrane when installing natural stone tiles onto any heated substrate.

#### Moisture Readings Up To 75% RH

If the substrate requires levelling and / or smoothing prior to works commencing, a suitable Tilemaster smoothing

and levelling compound can be used to make good the substrate

Where the moisture readings are up to 75% RH, a suitable Tilemaster cementitious adhesive can be used to install the tiles.

The use of Tilemaster Anti-Fracture Uncoupling / Decoupling Matting should be considered for all installations onto screeds that contain underfloor heating, It is essential to install Tilemaster Anti-Fracture Uncoupling / Decoupling Matting membrane when installing natural stone tiles onto any heated substrate.

## Sand & Cement Screeds / Concrete - Resilient Floorcoverings (LVT, Carpet etc.)

#### Moisture Readings Up To 98% RH

Tilemaster FAST One Coat DPM must be applied to the substrate prior to works commencing. If the substrate requires levelling and / or smoothing prior to works commencing, Tilemaster Pro Flow or Tilemaster Super Flow 30 must be used to make good the substrate.

Following the application of Tilemaster FAST One Coat DPM and a subsequent coat of Tilemaster Prime+ Grip, the surface can be smoothed with a suitable Tilemaster smoothing and levelling compound prior to installation of floor coverings.

#### Moisture Readings Up To 75% RH

Use a suitable Tilemaster smoothing and levelling compound to smooth the substrate prior to works commencing.

Anhydrite / Hemihydrate / Calcium Sulphate / Gypsum - Ceramic, Porcelain & Natural Stone Tiles

#### Moisture Readings Up To 85% RH

If the substrate requires levelling and / or smoothing prior to works commencing, Tilemaster AnhyLevel must be used to make good the substrate.

Moisture readings that are reading up to 85% RH must have Tilemaster AnhyFix used to install the tiles.

Where timings do not allow for the moisture in the screed to reach 85% RH, Tilemaster FAST One Coat DPM can be used on prepared heated calcium sulphate screeds when the moisture is at 90% RH or less.

Anhydrite / Hemihydrate / Calcium Sulphate / Gypsum - Resilient Floorcoverings (LVT, Carpet etc.)

#### Moisture Readings Above 90% RH

Not suitable for installation. Contact the Tilemaster office on 01772 456831 for further information.

#### Moisture Readings Up To 90% RH

Tilemaster FAST One Coat DPM must be applied to the substrate prior to works commencing.

Following the application of Tilemaster FAST One Coat DPM and a subsequent coat of Tilemaster Prime+ Grip, the surface can be smoothed with a suitable Tilemaster smoothing and levelling compound prior to installation of floor coverings.

#### Moisture Readings Up To 75% RH

Tilemaster AnhyLevel must be used to smooth the substrate prior to works commencing.

#### Calibration

Periodic calibration of this meter is required. For advice on how to achieve calibration, please contact the Tilemaster office on 01772 456831, who will be happy to help.