



# DIGITAL HYGROMETER

## PRODUCT DATA

Before bonding a decorative floorcovering to a cementitious or synthetic anhydrite screed base, it is essential that a moisture test is carried out to ensure that the base is sufficiently dry to receive the selected floorcovering.

### BASIS OF TEST

The codes of practice BS 8203 (Installation of resilient floorcoverings), BS 5325 (Installation of textile floorcoverings) and BS 8201 (Installation of timber floorcoverings) recommend that dampness testing is carried out using a hygrometer. The hygrometer measures the Relative Humidity (R.H.) of a small volume of confined air in equilibrium with the subfloor, but isolated from the surrounding air. The base can be considered dry enough to install most floorcoverings if a series of tests produce readings not exceeding 75% R.H.

For timber floorcoverings consult the suppliers for further advice.

### CONTENTS

A calibrated Digital Hygrometer in an insulating box, butyl sealing tape and a technical data sheet.

The Digital Hygrometer incorporates an accurate thermo hygrometer that indicates both relative humidity and air temperature. The measuring range is 20% - 99% R.H., with a temperature range of 0°C – 50°C. The thermo hygrometer will record minimum and maximum values whilst it remains switched on. This memory will be lost when the instrument is switched off.

Spare butyl tape is available to order as a separate item.

### TEST PROCEDURE

Ensure that any artificial aids used to accelerate the drying and underfloor heating systems are turned off for at least 4 days before the readings are taken.

Floors must be swept and /or vacuumed to remove any dust.

Use a Protimeter MMS Plus or Protimeter Aquant™ instrument in search mode to establish the area or areas of greatest concern on the subfloor. It is advantageous to obtain a background / history of the site, i.e. if a new subfloor; when was it poured and the thickness of the base, age of the property etc.

Use the butyl tape provided to make an airtight seal around the base of the insulating box containing the instrument and position it onto the subfloor. The instrument must remain switched off until the unit becomes conditioned for use. If the tape is not available, then a waterproof, water free non-setting putty or similar can be used. Where there are uneven floors, it may be necessary to apply two layers of butyl tape or non-setting putty to provide an adequate seal.

Once sufficient time has elapsed to allow entrapped air to reach moisture equilibrium with the screed or base, the unit can be switched on.

For 50mm thick screeds, where the damp proof membrane is placed between the base and the screed, a period of at least 4 hours should be allowed before the first reading is taken.

Equilibrium can be assumed either when two consecutive readings taken at 4 hourly intervals show no change, or if the instrument is left in position overnight.



### FEATURES

- Ready for use - No Calibration required.
- Simple to use.
- Reliable.

### CALIBRATION

The Digital Hygrometer has been pre-calibrated to 75% R.H. at 20°C and should not require further attention. The battery supplied will provide approx. 5000 hours of use.

Should you wish to check the calibration of the instrument, please contact our Technical Service Department for guidance.

### STORAGE

The unit should be stored securely to avoid damage to the internal electronics so as not to affect the calibration.

### DISPOSAL

As this instrument is classified as electronic waste, the digital unit should be returned to F. Ball who will dispose of the unit in accordance with current regulations. Please return the unit to the point of purchase who will make the necessary arrangements to return this to F. Ball and Co. Ltd.

For thicker constructions i.e. where the damp proof membrane is placed below the base slab, a period of 72 hours should be allowed to elapse before the first reading. Equilibrium can be assumed when two consecutive readings taken at 24 hour intervals show no change. Constructions with a thickness greater than 200mm can take longer than one week before moisture equilibrium is established.

To minimise the time required for the instrument to be sealed to the floor, the following technique can be applied: Cover the positions to be measured with impervious mats (e.g. polythene sheet, rubber mats etc.) of not less than 1m x 1m, taped to the floor at their edges. Leave in position for at least 3 days for screeds and 7 days in the case of thick constructions. After removing the mat, immediately seal the instrument to the centre of the previously covered area. Moisture equilibrium is usually attained within 2 – 4 hours of placing the instrument but should be left overnight for confirmation.

### **WATERPROOF SURFACE MEMBRANE SELECTION**

Where R.H. values are between 75 – 92% a single coat of STOPGAP F76 or F76 HP Waterproof Surface Membrane can be applied.

For R.H. values up to 95%, a two coat application of STOPGAP F78 can be applied.

For R.H. values greater than 92%, providing the base is visibly dry, a one coat application of STOPGAP F77 or a two coat application of STOPGAP F75 Waterproof Surface Membrane should be used.

Alternatively, the use of the 'loose laid' STOPGAP ISOLATOR MEMBRANE should be considered, for appropriate floorcoverings.

Where an underfloor heating system is present and the R.H. level is up to a maximum 90%, a one coat application of STOPGAP F77 should be used.

See individual product technical data sheets on the above mentioned products for further information.

Site conditions vary, to ensure this product is suitable and confirm this data sheet is current, please contact our Technical Service Department.



**For further information about F. Ball products or more detailed technical assistance, please contact:**



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