

## TOPICAL MOISTURE RESISTANCE

### ISO 4760 Topical Moisture Resistance.

**Products claiming to be impervious must meet the New Zealand Building code clause E3 Internal Moisture regulations**

Acceptable Solutions and Verification methods for the New Zealand Building Code Clause E3 Internal Moisture has a requirement and definition for “impervious” in particular use situations, but it states no specific test methods have been adopted for verifying compliance to E3.

Impervious is defined in E3 as that which does not allow the passage of moisture.

This test ISO 4760 may be put forward as an alternative solution for the New Zealand Building Code E3 Internal Moisture.

The ISO test method is used internationally. It has no NZ equivalents. With IANZ approval, it is the best option for testing and compliance of resilient flooring to NZBC E3 and should smooth the path to approval to the NZBC.



Figure 1: Spilled Water over a joint between laminate flooring

The E3 (NZBC) has a functional requirement of impervious surfaces to prevent illness, injury or damage through accumulation of moisture, or damage caused by free water penetration.

This Building Code clause requires buildings to be constructed to avoid fungal growth and excessive moisture. Its provisions relate to habitable spaces, bathrooms, laundries and other spaces where moisture may be generated or accumulate.

Surfaces in spaces containing sanitary fixtures (e.g. toilets, baths, showers, basins) or sanitary appliances (e.g. dishwashers and washing machines) must be impervious and easily cleaned. ISO 4760 is our suggestion for illustrating that the system tested is impervious to water.

## Principle

The test is carried out on assembled samples. A water and dye solution is applied per the method over a “T” joint. After 24 hours the samples are examined for dye penetration. Swelling can also be measured.

Old test reports cannot be retrospectively accredited, but customers may rest assured that our procedure has not changed since the test was set up.

The test is carried out in our Napier laboratory using the test procedure that was set up late 2022.



Figure 2: Pooled liquid over a “T” joint with time lapse

## Relevant Standards

NZWTA Textiles and Materials can test your hard flooring products to the following standards:

- ISO 4760 Laminate flooring – Topical moisture resistance standard.
- ISO 24342:2018 – Resilient and Textile Floor Coverings – Determination of Side Length, Edge Straightness & Squareness of Tiles
- ISO 23999:2018 – Resilient Floor Coverings – Determination of Dimensional Stability & Curling After Exposure to Heat
- ISO 2551:2020 – Textile Floor Coverings and Textile Floor Covering in Tile Form – Determination of Dimensional Changes Due to the Effects of Varied Water & Heat Conditions & Distortion Out of Plane

- BS 4682-2:1988 – Methods for Dimensional Stability of Textile Floor Coverings – Determination of Dimensional Changes Due to Changes in Ambient Humidity
- BS 4682-3:1981(Inactive) - Methods for Dimensional Stability of Textile Floor Coverings – Determination of Dimensional Changes After Exposure to Heat
- BS 4682-4:1981 - Methods for Dimensional Stability of Textile Floor Coverings – Determination of Dimensional Changes Due to Changes After Immersion in Water

*If your business is dependent on meeting product quality standards and/or specifications relating to this test method, talk to the NZWTA team to see if we can help.*

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