



## **E3/AS1 Interface Carpet Tile (System 6) Alternative Solution Compliance**

This technical guide talks to the INZIDE recommended “**alternative solution**” to meet the **E3/AS1 NZ Building Code** requirement. Using technical information to demonstrate Building Code compliance is allowable under MBIE guidelines, as described on MBIE’s [Building Performance website](#).

INZIDE has proudly distributed Interface branded Carpet Tile in New Zealand since 1996. Interface is widely recognized internationally, installed into residential and commercial spaces alike in over 50 countries, in area where carpet is used such as Corporate Offices, Public Spaces, Retail, Education, Medical, Hospitals, Retirement/Aged Care Villages etc.

System 6 in particular is used in Doctors consulting rooms where a sanitary fixture is a single hand basin for hygiene and cleanliness reasons, pose no hazard in relation to microbial growth mould or algae build up and where no procedures are carried out.

Products are manufactured in Sydney (Australia) and China to strict ISO requirements (Quality, Environmental and Health & Safety) and Interface Carpet tile brands are backed by INZIDE’s full 15-year performance warranty for commercial applications.

It is key to note that B2 Durability is a consideration behind E3 and in particular B2.3.1 “*Building elements must, with only normal maintenance, continue to satisfy the performance requirements of this code for the lesser of the specified intended life of the building, if stated, OR; c) 5 years if;*

- i. The building elements are easy to access and replace, and*
- ii. Failure of those building elements to comply with the building code would be easily detected during normal use of the building”*

Interface Carpet Tiles are easy to access and replace and can be easily detected during normal use of the building. Hence it needs a 5-year life-span to meet code. Interface brands are backed by a FULL 15-year performance warranty for commercial applications and hence comply with B2 of the Building code.

### **E3 – Amendment 7 to Acceptable Solution E3/AS1 for internal moisture – effective 3<sup>rd</sup> November 2021**

Amendment 7 reclassifies dishwashers and washing machines as Sanitary appliances and basins and sinks as Sanitary Fixtures. There is now a requirement to ensure flooring solutions have a finish that is both impervious and easily cleaned extending at least 1.5 metres from all sanitary fixtures and appliances.

#### **E3.3.1**

***An adequate combination of thermal resistance, ventilation and space temperature must be provided to all habitable spaces, bathrooms, laundries and other spaces where moisture may be generated or may accumulate.***

Please refer to page 28 of FloorNZ's [Best Practice Guidelines For the New Zealand Flooring Industry Carpet Floor Coverings Planning and Installation](#) ("Best Practice Guidelines for Carpet Floor Coverings")

### **E3.3.2**

***Free water from accidental overflow from sanitary fixtures or sanitary appliances must be disposed of in a way that avoid loss of amenity or damage to household units or other property***

Where a floor waste is installed (if any) is a building/plumbing design consideration (not a flooring design consideration).

If it is determined that the flooring material is required to "contain free waterflow from accidental overflow prior to disposal" (i.e. mopping up), then a waterproof membrane must be used (as per Appendix 1).

### **E3.3.3**

***Floor surfaces of any space containing sanitary fixtures or sanitary appliances must be impervious and easily cleaned.***

Interface carpet tile is manufactured with solution dyed nylon (SDN) yarn in the pile with a 4mm vinyl backing to make them dimensionally stable and impervious to moisture penetration (SGS test). The pile is the wear layer that has a treatment of Protekt soil/stain protection prevents stains/moisture from being absorbed, providing a surface from which stains can be easily removed. The inclusion of Intersept anti-microbial in the backing prevents mould or microbial growth for the lifetime of the carpet tile. A carbon filament in the yarn controls any potential build-up of static.

Carpet tiles by description are squares cut to the tile size. As such each tile is impervious to moisture. This leaves the seams as a potential pervious areas depending on how tightly they are butted together. Using a wet area adhesive such as Uzin KE68 or Ardex AF180 to install 1.5 meters radius from the sanitary fixture as per code. This ensures the that tiles rolled into V1 notched trowelled adhesive creating good transfer ensures that seams have adhesive forced up into them and that moisture is then contained.

Independently tested in New Zealand by SGS Industrial Certification Services a 24 hour water spill test showed that there was no noticeable change to the Interface Carpet Tile and that there was no water penetration through the carpet tile when installed per the above installation methodology. In addition all perimeter edges and tile (seams) are to be sealed with a MS Silicone to 1.5 metres radius from the sanitary fixture.

### **E3.3.4**

***Wall surfaces adjacent to sanitary fixtures or sanitary appliances must be impervious and easily cleaned.***

Please refer to wall supplier/builder for specific wall information.

### **E3.3.5**

***Surfaces of building elements likely to be splashed or become contaminated during the intended use of the building, must be impervious and easily cleaned.***

Refer answer provided to clause E3.3.3 above and to INZIDE's [Cleaning & Maintenance Guides](#)

### **E3.3.6**

**Surfaces of building elements likely to be splashed must be constructed in a way that prevents watersplash from penetrating behind linings or into concealed spaces**

FloorNZ's Best Practice Guidelines for Carpet Floor Coverings (applicable to Interface) state that tiles are to be firmly butted together and have no gaps around any part of the perimeter.

The method in Appendix 1 illustrates the installation requirements to comply with clause E3.3.6. The use of a silicone bead around the perimeter and a wet room adhesive being used is mandatory. The use of a waterproof membrane (and primer) is a site-specific answer to:

- a) The watersplash being frequent enough to cause free flowing water; and/or
- b) The watersplash accumulating over time (not being mopped up regularly) causing free flowing water.

**Interface System 6 complies with E3/AS1 as an acceptable alternative solution when this installation solution is used.**

**Carpet Tile Installation Guide**

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**SYSTEM 6****INSTALLATION METHOD**

The installation of tile to provide a moisture impervious installation that can be carried out in the following installation method.

**InterTac™ PLUS**

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Utilising InterTac™ Plus adhesive to hold the tiles in position and seam sealing of the carpet tiles to each other to provide impervious seams. Use wet area adhesive (Uzin KE68T or AF180) 1.5 metre radius from the sanitary fixture, including wall junctions (perimeter).

Installation temperature of working area and substrate is to be a minimum of 10 degrees C and a maximum of 30 degrees C.

1. Vacuum/sweep the subfloor.
2. If it is required to seal the floor against spills apply the selected floor sealer to manufacture's recommendations.
3. If a floor sealer is not being used and the subfloor is deemed to be porous the floor should be primed with an acrylic based floor primer.
4. Set out the grid line for the tile and include the 1.5mtr radius from the sanitary fixture for the wet area adhesive.
5. Apply InterTac™ PLUS as per recommendations set out in the Interface Installation Manual including the wet area adhesive.
6. Carpet tile edges to be clean & dry.
7. Once the adhesive has tacked up install first tile to the grid line centered on the 1.5 radius from

the sanitary fixture.

8. Apply maximum of 3mm bead of seam sealer to the tile edges being careful to apply seam sealer to the tile backing not the yarn.
9. Install the next tile by sliding the new tile into the already installed tile while the seam sealer is still wet being careful not to force seam sealer up onto the yarn but still achieve a tight butt seam.
10. Follow this procedure to complete the area around the sanitary fixture and then continue as per Interface recommendations set out in the Installation Manual for InterTac™ Plus.
11. Allow seams to fully dry for 24 hours before allowing traffic.

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