16/11/2026

# E3/AS1 Robert Malcolm Ltd LVT (Luxury Vinyl Tiles) – Alternative Solution Documentation

To whom this may concern

Please find below the supporting documentation for all Robert Malcolm Ltd Luxury Vinyl Tiles to cover E3/AS1. This document must be submitted as part of a Building Consent Application as an Alternative Solution. For the purpose of this document LVT refers to both Luxury Vinyl Tile and Luxury Vinyl Plank.

Robert Malcolm have been supplying LVT ranges to the New Zealand market for over 25 years. We source our products from companies based in Taiwan and Belgium, they have been manufacturing LVT for 39 and 13 years respectively, and produce to a very high standard. These flooring products can be installed in both residential and commercial situations as an Alternative Solution in the following areas-

Kitchen, Dining, Laundry, Toilet, and Bathroom.

Below is Robert Malcolm's current range of LVT products and their history

- Oslo (Vinyltech LVT) Distributed in NZ 28 years / Manufacturers age 41 years
- Supremo Distributed in NZ 11 years/ Manufacturers age 15 years
- Divino Distributed in NZ 11 years/ Manufacturers age 15 years
- Moduleo Select Distributed in NZ 11 years/ Manufacturers age 15 years
- Moduleo Transform Distributed in NZ 11 years/ Manufacturers age 15 years
- Moduleo Impress Distributed in NZ 11 years/ Manufacturers age 15 years
- Moduleo Moods Distributed in NZ 7 years/ Manufacturers age 15 years

**E3.3.1 An adequate combination of thermal resistance, ventilation, and space temperature must be provided to all habitable spaces, bathrooms, laundries, and other areas where moisture may be generated or may accumulate.**

Please refer to our installation guidelines below along with the New Zealand flooring national body (FloorNZ) literature on best practise guidelines for resilient flooring installation.

- Oslo Installation Recommendations
- Supremo Installation Recommendations
- Divino Installation Recommendations
- Moduleo Installation Recommendations
- FloorNZ - Best Practise Guideline Resilient Flooring Installation

**E3.3.2 Freewater from accidental overflow from sanitary fixtures or sanitary appliances must be disposed of in a way that avoids loss of amenity or damage to household units or other property.**

We believe the above clause relates more to building and plumbing design and should be discussed with the applicable trades. We recommend that Gilt Edge Industries flooring systems (floor preparation products and adhesives) are used in conjunction with Robert Malcolm LVT products to satisfy NZBC E3.3.2 in relation to flooring. Gilt Edge Industries product details can be found in the links below. Our LVT products contain a urethane top surface that is impervious. When coupled with the correct Gilt Edge Industries flooring system, we believe they meet the criteria for an Alternative Solution.

Water splash

- Concrete Substrates - Kitchen, Toilet and Laundry Water Splash
- Concrete Substrates - Bathroom Water Splash
- Timber Substrates - Kitchen, Toilet and Laundry Water Splash
- Timber Substrates - Bathroom Water Splash

Containment

- Concrete Substrate - Containment
- Timber Substrate - Containment

**E3.3.3 Floor surfaces of any space containing sanitary fixtures or sanitary appliances must be impervious and easily cleaned.**

The top surface of Robert Malcolm LVT products have a durable urethane top layer that is impervious. Combined with the correct Gilt Edge Industries installation system we believe this product meets the criteria for an Alternative Solution. This is supported by testing carried out by NZWTA, an independent testing body based in Napier, New Zealand. The test results in the link below show Robert Malcolm's LVT products meet the criteria of impervious, when coupled with the correct Gilt Edge Industries adhesive.

Oslo Impervious Test Result Using Uzin KE66 Adhesive

Oslo Impervious Test Result Using Uzin KE68T Adhesive

Moduleo Residential/ Supremo Impervious Test Result Using Uzin KE66 Adhesive

Moduleo Residential/ Supremo Impervious Test Result Using Uzin KE68T Adhesive

Moduleo Commercial/ Divino Impervious Test Result Using Uzin KE66 Adhesive

Moduleo Commercial/ Divino Impervious Test Result Using Uzin KE68T Adhesive

The link below shows case history of Moduleo LVT being used in age care facilities throughout the UK where water splash was present.

- Moduleo Technical Bulletin

Robert Malcolm LVT ranges have been specifically designed to be easily cleaned. During the manufacturing of these products a high degree of engineering goes into the surface design, resulting in soiling coming away with little effort.

**E3.3.4 Wall surfaces adjacent to sanitary fixtures or sanitary appliances must be impervious and easily cleaned.**

Please refer to wall material supplier.

As per the FloorNZ best practise guidelines all Robert Malcolm LVT installed within 1.5m of any sanitary fixture or sanitary appliances must have a silicone or flexible sealant applied to the junction of any vertical surface to seal the junction and prevent water splash penetrating any wall lining.

**E3.3.5 Surfaces of building elements likely to be splashed or become contaminated in the course of the intended use of the building, must be impervious and easily cleaned.**

The top surface of Robert Malcolm's LVT products has a durable urethane top layer that is impervious. Couple this, with the correct Gilt Edge Industries Ltd. installation system we believe this product meets the criteria for an Alternative Solution. This is backed up by testing carried out by NZWTA, an independent testing body based in Napier, New Zealand. The test results in the link below show Robert Malcolm LVT products meet the criteria of impervious, when coupled with the correct Gilt Edge Industries Ltd adhesive.

Oslo Impervious Test Result Using Uzin KE66 Adhesive

Oslo Impervious Test Result Using Uzin KE68T Adhesive

Moduleo Residential/ Supremo Impervious Test Result Using Uzin KE66 Adhesive

Moduleo Residential/ Supremo Impervious Test Results Using Uzin KE68T Adhesive

Moduleo Commercial/ Divino Impervious Test Result Using Uzin KE66

Moduleo Commercial/ Divino Impervious Test Result Using Uzin KE68T

Robert Malcolm's LVT ranges have been specifically designed to be easily cleaned. During the manufacturing of these products a high degree of engineering goes into the surface design, resulting in soiling coming away with little effort. For cleaning instructions please see the links below outlining our cleaning and maintenance guidelines

- Oslo Cleaning and Maintenance
- Supremo Cleaning and Maintenance
- Divino Cleaning and Maintenance
- Moduleo Cleaning and Maintenance

**E3.3.6 Surfaces of building elements likely to be splashed must be constructed in a way that prevents water splash from penetrating behind linings or into concealed spaces.**

As per the FloorNZ best practise guidelines all Robert Malcolm Ltd LVT products installed within 1.5m of any sanitary fixture or sanitary appliance must have a silicone or flexible sealant applied to the junction of any vertical surface to prevent water splash penetrating behind any wall lining.

- FloorNZ - Best Practice Guideline Resilient Flooring Installation