



Alternative Solution Statement

In response to NZBC: E3





Introduction

This Alternative Solution applies to the use of the Corkoleum product range in order to satisfy the requirements of the NZBC Clause E3 Internal Moisture.

The NZBC Clause E3 spells out the following conditions to be met for wet area floors:

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

And according to the Definitions outlined in E3/VM1 & AS1 we have the following relevant definitions:

- **Impervious** - *That which does not allow the passage of moisture.*
- **Sanitary appliance** - *An appliance which is intended to be used for sanitation, but which is not a sanitary fixture. Included are machines for washing dishes and clothes.*
- **Sanitary fixture** - *Any fixture which is intended to be used for sanitation.*
 - (This includes) **COMMENT:** *Toilets, urinals, bidets, baths, showers, basins, sinks and tubs are examples of common sanitary fixtures.*

The summary conclusion as drawn from the above aspects of the NZBC Clause E3 are:

- All wet area floors must be impervious (including sealed edges) and easily cleaned.
- Wet areas include:
 - Kitchens
 - Bathrooms
 - Toilets
 - Laundries
- Furthermore – the wet area is defined as the floor zone within 1.5 metres of any Sanitary Appliance or Sanitary Fixture, where watersplash is regarded to occur – refer AS E3/AS1 Clause 3.1.1

Product

Corkoleum is an eco-friendly resilient flooring product that consists of an upper layer of natural decorative cork, with an inner polyurethane (PU) waterproof layer, and a natural cork/recycled rubber mix base layer.

Corkoleum is a natural alternative to PVC vinyl sheet flooring and is more comparable to real Linoleum products - which also boast a natural and sustainable makeup.

Corkoleum is available in a variety of natural surface finishes and colours, and comes in a 1400mm wide roll, and is available in 3mm or 5mm thicknesses.

Refer https://www.ecofloors.co.nz/Corkoleum_Natural for the full Corkoleum range available.

For wet areas – Corkoleum shall be paired with a wet applied polyurethane finish post installation – applied as per manufacturer’s instructions.

Installation

The Corkoleum product shall be installed in wet areas as per the following instructions:

Also refer to [FloorNzBestPractiseGuidelines-Resilient-June-2019-version.pdf](#) for more detailed recommendations and industry standard practice for similar products.

a) Substrate preparation

It is not recommended to apply the Corkoleum flooring over existing floor finishes.

i. Concrete

- Concrete floors shall be cured for at least 28 days and be of a sound and stable nature. Moisture content shall be less than 75%.
- Ensure any surface grinding is done to achieve a satisfactory smooth and consistent surface.
- Ensure the concrete is sealed with a proprietary concrete sealer system.
- Ensure the surface is dust free and dry prior to installation of Corkoleum.

ii. Timber

- Timber flooring such as new/existing plywood, existing chip board and existing floorboards, shall be of a sound and stable nature. Moisture Content shall be less than 20%.
- Ensure floors have a flat and consistent surface – use board underlayment if required.
- It is recommended but not essential that timber floors are sealed with a proprietary wood sealer system.
- Ensure the surface is dust free and dry prior to installation of Corkoleum.

b) Application

Plan the layout of the Corkoleum sheets to minimise seam placement at doors/splash areas.

- Use an adhesive that is compatible with the substrate (including with any sealers).
- Use a notched trowel – typically 1.6mm x 1.6mm x 1.6mm
- Ensure the recommended spread rate of that particular adhesive is adhered to.
- Use a proprietary weighted surface roller during installation to ensure an even spread of the adhesive below the Corkoleum.

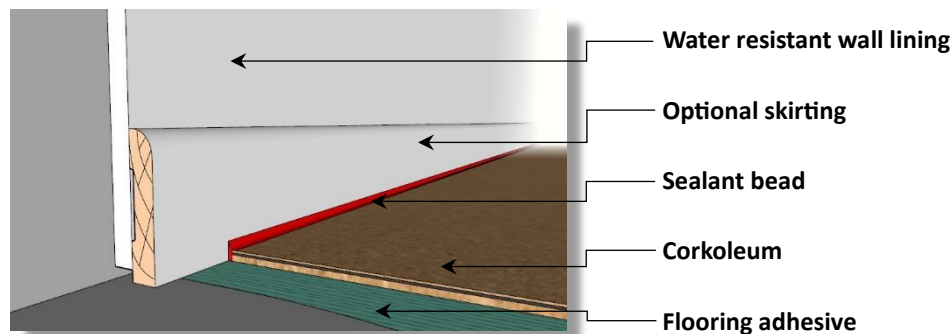
c) Sheet Seams

- Back seal the seam with a waterproof proprietary backing tape.
- The sheet seams shall be abutted firmly together to ensure a near invisible joint.
- Ensure any surplus adhesive is cleaned off as soon as practicable.
- Hand roll seams first to remove any trapped air from under the Corkoleum.
- Allow the adhesive to condition throughout the installation for 3 to 4 hours.
- Then use a proprietary weighted surface roller to ensure an even spread of the adhesive below the Corkoleum.

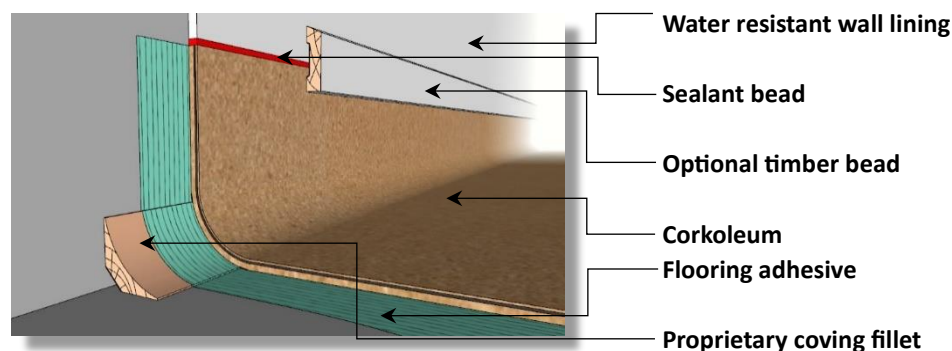
d) Edge Detailing

There are 2 main methods for edge detailing – around walls, cabinets, fixtures etc:

- Sealed with a thin bead of waterproof sealant. *Refer image below:*



- An upstand cove detail – using a proprietary coving fillet and either an overlapping wall lining system or sealed with a thin bead of waterproof sealant. *Refer image below:*



e) Surface Finishing

The decorative surface of the Corkoleum comes pre-sanded, over which a proprietary multi layered wet polyurethane system shall be applied – as per manufactures recommendations.

Solution

To fulfil the requirements set out in NZBC Clause E3 – the following comment stated under Clause 3.1.1 Floors shall be used as the basis for the installation requirements.

- **COMMENT:** *Other floor finishes may also be capable of satisfying the performance for impervious and easily cleaned, if installed in a manner that prevents gaps or cracks within the finish and at any parts of its perimeter that are exposed to watersplash, and/or if the surface is sealed with a suitable durable coating. However, such other finishes are outside the scope of this Acceptable Solution.*

Each of the stated conditions from the Comment above are addressed below:

f) IMPERVIOUS

By installing Corkoleum according to the recommended installation instructions and achieving the following detailing – then the Corkoleum system will be impervious to moisture.

- **Prevents gaps or cracks within the finish**

The natural cork product and the composite makeup of the Corkoleum resilient flooring makes the surface of the product very flexible, robust and free of gaps and cracks. The sheet seams shall have a backing tape applied along the entire length of the joint. Ensure the wet applied polyurethane multiple finishing coat application is carried out as per manufactures recommendations.

- **Prevents gaps or cracks around the perimeter**

The edges of the applied flooring around the wet area perimeter shall either be:

- i. Sealed with a thin bead of waterproof sealant – up against and around all skirtings, walls, toe-kicks, cabinetry, pipes and other penetrating elements.
- ii. An upstand cove detail – using a proprietary coving fillet and either an overlapping wall lining system or sealed with a thin bead of waterproof sealant.

Note – it is recommended that the wet applied polyurethane system is fully applied and cured before the application of the waterproof sealant edge beading.

- **Sealed surface**

The decorative surface of the Corkoleum comes pre-sanded, over which a proprietary multi layered wet polyurethane system shall be applied – as per manufactures recommendations.

g) EASILY CLEANED

Due to the above-mentioned sealed surface being applied (wet applied polyurethane multiple finishing coat system), the surface will be easily cleaned as per conventional cleaning methods – using as the situation requires:

- Broom or soft brush
- Standard vacuum system
- Sponge or microfibre mop using proprietary floor cleaning products.

Exclusions

It is not recommended to use Corkoleum within a shower enclosure.

Recommended Products:

We recommend the following products to be used in conjunction with the installation of Corkoleum:

- Adhesive Uzin KE 68
- Adhesive Uzin KE 2000 S
- Concrete Sealer ARDEX WPM 163 Concrete Sealer
- Joint Backing Tape ARDEX WPM 200 Reinforcing Tape
- Silicone Sealant ARDEX SE Silicone Sealant
- Polyurethane Bona Traffic HD



For further information – please contact ECOFLOORS

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