



# SUNSHINE COAST UNIVERSITY HOSPITAL

PERFECT SUBSTRATES AND LONG-LASTING FLOOR AND WALL  
VINYL COVERINGS FOR A HUB OF MEDICAL SERVICES IN AUSTRALIA



The Sunshine Coast University Hospital (SCUH) is a 1.2 billion Euro project by the Queensland Government to address the growing health service needs of the Sunshine Coast community in Eastern Australia.

The hospital opened in 2017 with about 450 beds which are intended to grow to 738 by 2021.

The new public facility has been designed as a tertiary teaching hospital, servicing the Sunshine Coast region, as the hub in an integrated network of accessible healthcare. It is the largest hospital project in Australia to date.

Designed to create natural, freely accessible social spaces that take full advantage of the benign seaside climate, the Sunshine Coast University Hospital offers high levels of public and natural amenity and, through



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**PHOTO 1.** Substrates were treated with ECO PRIM T and levelled with ULTRAPLAN ECO before bonding the vinyl coverings with ULTRABOND VS90 PLUS.

connection to the local community, enhances the experience of patients and staff, contributing to their wellbeing. Key features of the design include a large integrated central courtyard and the outdoor room designed to take advantage of the healing properties of natural air and light. These major spaces use the natural environment and landscape to create a hospital that blends buildings with landscape, seamlessly linking inside to out.

### **SAFE INSTALLATION OF VINYL FLOORS AND WALLS IN HOSPITAL FACILITIES**

The Sunshine Coast University Hospital was delivered through a Public Private Partnership (PPP) contract with Exemplar Health, a consortium comprising Lend Lease, Siemens and Capella Capital, with partners Spotless Facilities Services. This consortium designed, built and partially financed the public hospital and will continue to maintain it for 25 years.

PK Flooring floor layers were awarded the contract to repair, level, and waterproof substrates, as well as install various selections of vinyl coverings on both floors and walls throughout the extensive hospital areas and amenities. Mapei Australia, the local subsidiary of the Group, was involved in this project to provide a full installation system for over 71,000 m<sup>2</sup> of flooring and over 20,000 m<sup>2</sup> of wall coverings.

With over 80% of the concrete floor substrates needing to be levelled, the surfaces were firstly primed using ECO PRIM T solvent-free acrylic primer, followed by the application of

### **IN THE SPOTLIGHT**

#### **ULTRAPLAN ECO**

It is used for levelling and removing differences in thickness from 1 to 10 mm on new or existing substrates, preparing them to receive any kind of flooring where high resistance to loads and traffic is needed. Mixed with water, ULTRAPLAN ECO becomes a highly fluid and easily workable mortar, perfectly self-levelling with high adhesion to the

substrate that dries ultra-quickly. The smoothing compounds properly prepared with ULTRAPLAN ECO are classified as **CT-C25-F7-A2<sub>n</sub>**, according to **EN 13813**.



ULTRAPLAN ECO, a self-levelling, ultra quick-hardening smoothing compound preparing the substrates to receive any kind of floor covering where an excellent resistance to static and dynamic loads and traffic is required.

Concrete substrates that only required small repairs were treated with PLANIPREP SC (a fibre-reinforced skim coating compound manufactured and distributed on the Australian market by Mapei Australia) and NIVORAPID quick-drying, thixotropic, cementitious smoothing compound.

Some parts of the floor substrates had a lead sheet installed to act as a barrier between X-ray rooms and offices. These areas were levelled using NIVORAPID mixed with LATEX PLUS elasticising latex to improve the deformability of the levelling mortar.



## PROJECTS INSTALLATION OF RESILIENT FLOORS AND WALLS



**PHOTOS 2 and 3.** Some sections of the substrates were repaired with PLANIPREP SC and smoothed with NIVORAPID before bonding the vinyl floors.  
**PHOTO 4.** In the bathrooms wall and floor substrates were waterproofed with MAPEGUM WPS. Vinyl floors were then installed with ADESILEX G19.  
**PHOTO 5.** In the public areas vinyl coverings were bonded with ULTRABOND VS90 PLUS onto floors and with ROLLCOLL onto walls.

The floor and wall surfaces in the bathrooms and wet areas were waterproofed with MAPEGUM WPS quick-drying, flexible, liquid waterproofing membrane.

Once the second coat of MAPEGUM WPS was dry, the substrates in these areas were primed with a coat of undiluted ECO PRIM T, smoothed with PLANIPREP SC in preparation to install the vinyl floor coverings. Distribution joints were sealed with MAPEFLEX PU45, a rapid-hardening, paintable, thixotropic polyurethane sealant and adhesive with a high modulus of elasticity.

In all the wet areas the vinyl coverings were installed using ADESILEX G19 two-component, epoxy-polyurethane adhesive for resilient and textile floorings.

Over 60,000 m<sup>2</sup> of vinyl floors were installed in the public areas using ULTRABOND VS90 PLUS universal high temperature adhesive in water dispersion with very low emission level of volatile organic compounds.

Vinyl coverings were also bonded on over 27,800 m<sup>2</sup> of walls using ROLLCOLL multi-purpose adhesive in water dispersion.

**TECHNICAL DATA**  
**Sunshine Coast University Hospital**, Sunshine Coast (Australia)

**Year of construction:** 2016

**Year of the Mapei intervention:** 2016

**Intervention by Mapei:** supplying products for substrate preparation and installation of vinyl floorings

**Main contractor:** Lend Lease

**Client:** Queensland Government

**Design:** Architectus & Rice Daubney Architects

**Floor contractor:** PK Floorings  
**Mapei distributor:** McDonalds Flooring Accessories

**Mapei coordinator:** Troy Bartlett, Mapei Australia Pty Ltd

### MAPEI PRODUCTS

Preparing the substrates:  
 Eco Prim T, Ultraplan Eco, Nivorapid+Latex Plus, Planiprep SC\*

Waterproofing the substrates:  
 Mapegum WPS

Sealing distribution joints:  
 Mapeflex PU 45

Installing vinyl floor and wall coverings: Adesilex G19,

Rollcoll, Ultrabond VS90 Plus

\*These products are distributed on the Australian market by Mapei Australia Pty Ltd.

For further information on products visit [www.mapei.com](http://www.mapei.com) and [www.mapei.au](http://www.mapei.au)