



Healthcare and Pharmaceutical Facility Protection Systems

Asset protection for essential infrastructure

EpiMax 222

EpiMax 330

EpiMax 333AR

EpiMax 330RF

EpiMax 333WB Express

EpiMax 444

EpiMax 465

EpiMax 620WB

Resutile Wall



EpiMax



What needs to be considered in the selection of a Healthcare Floor Protection System?

- **Contamination prevention - seamless continuity**

Cleaning and sanitising eliminates contamination. For this to be effective, floors and walls should be seamless, mechanically strong, and chemically and microbially inert.

New standards specify finish and smoothness requirements. Over time, floors and walls can become pitted, cracked, corroded, or roughened. These surfaces are more difficult to clean or sanitize, and may no longer be cleanable. Thus, care should be exercised in selecting protection systems.

- **Design life - budget compliance**

The first important question to ask when selecting a healthcare floor or wall protection system is - What is the required design life - 2, 5, 10 or 20 years? And, is frequent or regular maintenance feasible?

It is virtually impossible to keep any concrete structure from cracking. Without proper protection, these cracks become the sites for foreign bodies, micro-organisms, particulates, moisture, food and bacteria to accumulate.

The specification must meet the agreed design life and the intended maintenance-free period.

- **Safety under foot but still easy to clean**

Standards specify the slip factors for various flooring environments. But are they easy to clean? New systems are available that offer both.

- **Inherently inert**

All floor and wall protection systems must be inherently inert. They must not support microbial activity.

- **Chemical and mechanical performance**

The chemical and mechanical performance requirements including impact and abrasion resistance must be addressed. Any protection system applied to concrete must exhibit excellent adhesion and have a bond strength that exceeds the tensile strength of concrete.

- **Practical application characteristics**

The particular needs of the structure including the practical aspects of access and application are important considerations in any project.

EpiMax supplies protection systems that can be applied by spray or roller in thicknesses of 150 - 3000 microns per pass. Trowel applied systems can achieve 75 mm thickness.

Our systems are self priming.

- **Sustainability - whole of life**

Sustainability is related to the quality of life in a community - whether the economic, social and environmental systems that make up the community are providing a healthy, productive, meaningful life for all community residents, present and future.

With regard to concrete protection systems, sustainability should consider the "whole product life cycle". This includes production, application, service life and disposal.

Volatile Organic Content (VOC) is an important measure of a flooring system's environmental impact. Our products meet or exceed the requirements of IEQ.13.1, Green Star Office Interiors, Indoor Environment Quality. We are a member of the Green Building Council of Australia.

Yet a low VOC level is not all that is required to make a coating sustainable. The arithmetic of the application and the durability is very important. If the system lasts longer, it's even better.

Underperforming systems will always have greater environmental impact due to re-installation costs (surface preparation grinding energy, disposal and then the impact of the re-application itself).



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The major challenges facing the global healthcare system continue to be quality and health outcome improvement. Access and equity improvement are acute in some countries. In the western world, an ageing population is also a growing issue.

Much of the rise in costs can be attributed to advances in medical technology. Diagnostic and therapeutic advances, such as new radiological scanners, biological therapeutics, minimally invasive surgical procedures and prostheses, frequently come at a considerable cost.

And higher standards of healthcare are also being delivered through new developments in pharmaceuticals and biotechnology.

Contamination control in the delivery of healthcare related products and services is critically important. The overall goal must be to provide and maintain an aseptic and safe working environment. To achieve this, the risk of microbiological contamination must be eliminated through properly maintained cleanrooms and associated equipment.

Regular decontamination must eliminate all foreign bodies, micro-organisms, particulates, and endotoxins. This is typically achieved through particulate removal, microbial cleaning, sporicidal cleaning and finally rinsing. However, effective decontamination of walls and floor surfaces can only be achieved if those surfaces are non absorbent, chemically resistant and inherently anti-microbial. Inferior systems have limited chemical and abrasion resistance. They can dust easily and cannot be effectively cleaned. They are unsafe.

EpiMax is your source for the latest proven developments in performance wall and floor and wall protection systems. This is all we do. Our systems build on break-through technologies (extreme chemically resistant third generation epoxy novolac chemistry, high performance water based chemistry, new polyaspartic chemistry).

EpiMax has built its reputation on a construction engineering foundation. Our experience has been forged on an impressive variety of civil, environmental, industrial, mining, defence and general services construction.

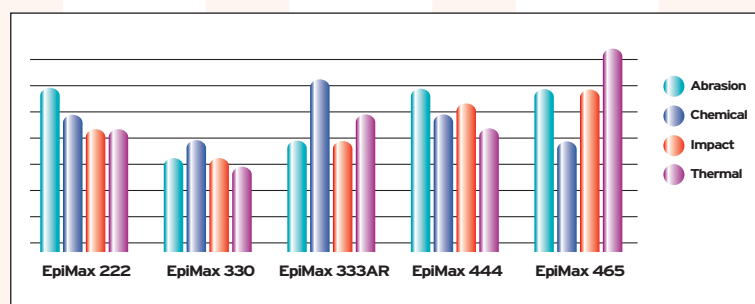
This success has been proven through partnerships with forward-thinking architects, consultants, engineers, application contractors, project managers and materials testing agencies. We believe in teamwork, respect and integrity.

Our primary focus is

- Floor Protection Systems
- Interior Wall Performance Systems
- Industrial Concrete Protection Systems
- Green Star Protection Systems
- Water and Wastewater Processing Protection Systems
- Foundation Protection Systems
- Extreme CAT (Corrosion, Abrasion and Thermal) Protection Systems

EpiMax: Expertise Applied, Answers Delivered

System Performance Chart



EpiMax Heavy Duty Healthcare Flooring Range

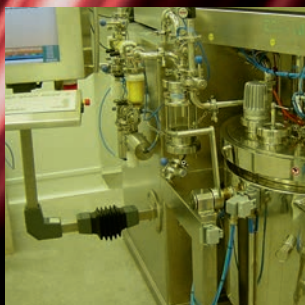
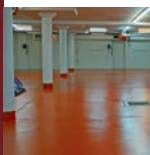
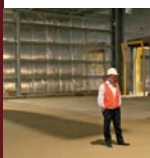
Applications

Pharmaceutical products:

- **Cleanrooms**
- **Pathology laboratories**
- **Filling rooms**
- **Mixing rooms**
- **Bioanalytical laboratories**
- **Stock rooms**
- **Reactor rooms**
- **R&D laboratories**
- **Warehousing**
- **Chemical storage areas**
- **Tableting rooms**
- **Biotechnology laboratories**

Healthcare services:

- **Catering**
- **Laundries**
- **Operating theatres**
- **Radiology and ultrasound units**
- **Emergency healthcare centres**
- **Physiotherapy units**
- **Waste management facilities**
- **Retirement and assisted living**
- **Storage areas**
- **Blood registries**
- **Nursing homes**



EpiMax 222

Exceptional two-pack solventless epoxy flooring system demonstrating excellent adhesion and general durability.

- Trowel application to 5+ mm
- Resistant to a wide range of industrial chemicals
- Certified traction levels available
- Anti-microbial formulation
- Tough and abrasion-resistant; excellent for heavy traffic
- Ideal for wet areas, ramps etc

EpiMax 330

New two-pack solventless high build epoxy flooring system demonstrating excellent adhesion and general durability.

- Roller or airless spray application to 500 microns
- Resistant to a wide range of industrial chemicals
- Non-tainting to food stuffs during application
- Anti-microbial formulation
- Variable slip resistance available
- Wide range of colours

EpiMax 33ORF

A high-performance, fibre reinforced wall coating for maximum protection against physical abuse, acids and alkalis.

- Mechanically strong
- Resists a wide range of chemicals
- Can be applied up to 1 mm directly to concrete
- Food safe during and after application phase
- Easily cleaned and sanitised - toughest mechanically

EpiMax 333AR

A two-pack high solids novolac coating system demonstrating outstanding chemical resistance and adhesion.

- Roller or airless spray application to 300 microns in two coats
- Self priming
- Highly resistant to splashes and spills of harsh chemicals
- Also selected for higher temperature applications
- Variable slip resistance for floors available
- Potable water approved

EpiMax 333WB Express

A rapid hardening two-pack water based epoxy flooring system that provides excellent protection to all forms of concrete. This system can be used to prepare easy-clean floor and wall surfaces for a wide range of applications.

- Roller or airless spray application to 350 microns
- Rapid return to service
- Hazmat free chemistry
- Long lasting durability
- Good adhesion to damp concrete
- Can be applied in non slip finish





EpiMax 444

The proven solution for tough industrial applications where end users want to eliminate floor maintenance problems and expense. This system provides a bright, durable, impervious and chemically resistant floor surface which is both hygienic and easy to clean.

- Professional application at between 2 - 4 mm
- Fast application - minimal downtime
- Attractive finish
- Chemically resistant
- High mechanical strength
- Hygienic - provides a dense, impervious, seamless floor surface



EpiMax 465

Industrial floor protection for areas with the highest mechanical demand. This system offers excellent thermal shock resistance and resistance to abrasion, mechanical stress and mid range chemical action. Installation is fast and placement is easy.

- Typically applied at between 4 - 5 mm
- Fast application - minimal downtime
- Extreme mechanical performance
- Excellent thermal shock resistance
- Good chemical resistance
- Easy to clean and sterilise



EpiMax 620WB

An easy clean coloured wall finish specifically designed to outperform architectural sealers.

- Waterborne coloured single pack
- Fast application - fast drying
- Good adhesion to most clean surfaces
- Can be applied to most surfaces without a primer
- Provides a low sheen easy clean finish - colour range



Resutile Wall

A high performance two-pack, high solids polyurethane wall coating for maximum chemical resistance which is light-fast and flexible

- Light - fast performance
- Resistant to impact and abrasion
- Resistant to temperatures to 150°C
- Good abrasion and impact resistance
- Easy cleaning, including removal of graffiti

Why is the design, construction and maintenance of healthcare facilities so important?

An inherent hazard in the delivery of health related products and services is the potential for transmission of infection and infectious diseases, both known and emerging. A hazard in a health care setting is defined as an agent (biological, chemical or physical) that has the potential to cause harm to people or the environment. In infection control, a hazard is either an infectious agent or a mechanism that allows the transmission of an infectious agent.

Aseptic conditions are essential during all healthcare production and service delivery. Concrete is a remarkable material, but it has significant limitations in a sanitary environment. It has minimal chemical resistance and is porous. That makes it an ideal haven for contamination, bacteria and infection transmission.

Further, chemical washdown of equipment can be quite destructive to concrete.

High performing seamless systems protect concrete and provide a sanitary barrier to contamination.

Walls and floors need to be maintained in a sound condition so that they can be kept clean. Integral coving is required.

All surfaces must be capable of being effectively cleaned, disinfected and maintained in sound condition.

All wet area flooring must allow for adequate drainage. All flooring must meet the appropriate slip resistance standard. See below:

AS/NZS 4586:2013

Slip resistance classification of new pedestrian surface materials.

This Standard provides means of classifying flooring systems according to their frictional characteristics when determined in accordance with the test methods included. These test methods enable characteristics of surface materials to be determined in either wet or dry conditions.

The test methods in this Standard shall be used for the classification of flooring for use in either the wet or the dry condition.

The inclining ramp test methods are suitable for measuring the slip resistance of gratings, heavily profiled surfaces and resilient surfaces within the test laboratory environment.

In the field, the most commonly accepted and specified method of measuring slip resistance is by use of the TRL Pendulum Tester incorporating a rubber slider.

The range of EpiMax Healthcare Flooring Systems have been tested to AS/NZS 4586:2013.

HB 198 An introductory guide to the slip resistance of pedestrian surface materials.

This Handbook provides guidelines for the selection of slip-resistant flooring surfaces classified in accordance with AS/NZS 4586. It recommends the minimum floor surface classifications for a variety of facilities. Published in conjunction with the CSIRO.



Environmentally sustainable



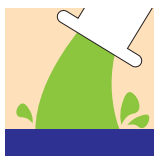
Resistance to abrasion and impact



Durable



High adhesion



Resistance to chemicals



Anti microbial



EpiMax Systems Pty Limited

Brisbane • Sydney • Melbourne • Hobart • Perth
Australia ☎ 1300 721 522 info@epimax.com.au