Performance Interior Wall Protection Systems

Seamless protection in demanding environments

EpiMax 330

EpiMax 330RF

EpiMax 333WB

EpiMax 600WB

EpiMax 620WB

EpiMax 777UHD Gloss

EpiMax 777UHD Matt

EpiMax 920

EpiMax

What needs to be considered in the selection of an Interior Wall Protection System

• Design life - budget compliance

The first important question to ask when selecting a 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.

• Chemical and mechanical performance

The chemical and mechanical performance requirements including impact and abrasion resistance must be addressed. Any protection system applied to walls must exhibit excellent adhesion and have a bond strength that exceeds the tensile strength of surface and must not tear.

• Contamination prevention - seamless continuity

Over time, walls can become pitted, cracked, corroded, or roughened. These surfaces are more difficult to clean or sanitise, and may no longer be cleanable. Thus, care should be exercised in selecting protection systems. Cleaning and sanitising eliminates contamination. For this to be effective, walls should be seamless, mechanically strong, and chemically and microbially inert. New standards specify finish and smoothness requirements. General laboratory design and construction is controlled by AS/NZS 2982 which specifies chemical resistance. The microbiological safety and containment standards are specified in AS/NZS 2243 for PC1, PC2, PC3 and PC4 facilities.

• Aesthetics

EpiMax wall protection systems are available in a wide range of colours from AS 2700 and RAL ranges. Colours can also be matched to project requirements.

• Hygienic and anti-microbial

Ideally, wall and protection systems should be non-leaching and incorporate anti-microbial agents in every coat of the system, so even with the most rigorous maintenance programmes the anti-microbial properties are effective for the whole life of the project. Standards exist for most industries.
For example, AS 4696 specifies the interior design control for meat and smallgoods production.

• Practical application characteristics

The particular needs of the environment 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 micron per pass. Systems are designed for versatile reinforcement requirements as required enhance mechanical performance.

• 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 energy, disposal and then the impact of the re-application itself).

EpiMax

Over the last decade, *healthcare, scientific research, food and beverage and selected manufacturing operations have had to adjust to a variety of emerging business trends and forces. Today, the environment must meet the functional requirements as well being architecturally pleasing.*

Global standards in the food preparation and transportation sectors and many critical assembly processes require wall surfaces to be durable, smooth, impervious, corrosion resistant, chip-resistant, non toxic, inert to the food and detergents/sanitising agents and must not transmit odour or taste. Additionally, they must be capable of withstanding repeated cleaning and sanitisation and allow visible contamination to be easily detectable.

Contamination control is critically important, and the risk of microbiological contamination must be eliminated through properly maintained clean rooms and associated equipment.

The performance expectations that have traditionally been placed on the floor surface environment (mechanical, chemical, anti-microbial sterility) are now being placed on walls and ceilings as well, to ensure the complete internal environment performs to consistent standards.

Effective decontamination of walls and ceiling surfaces can only be achieved if 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 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.

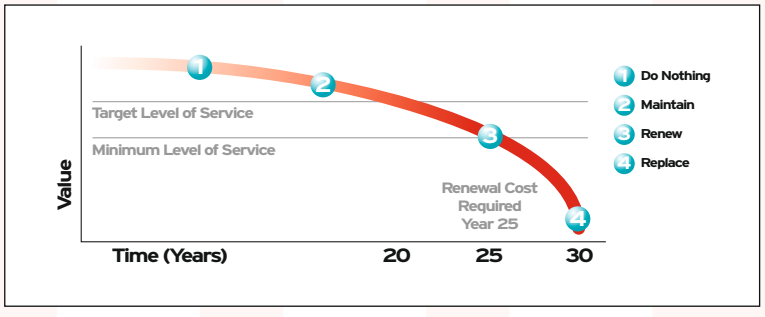
This success has been proven through partnerships with forward-thinking architects, consultants, engineers, application contractors, project managers and materials testing agencies. We believe in teamwork, respect and integrity.

Our primary focus is

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

EpiMax: Expertise Applied, Answers Delivered

Typical Asset Depreciation

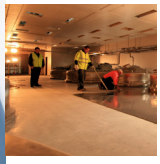


Applications

- Healthcare
- Semiconductor
- Aerospace
- Cosmetics
- Pharmaceutical
- Correctional facilities
- Meat and smallgoods
- Beer and beverage
- Physical containment
- Animal containment
- Plant containment
- Invertebrate containment
- Animal housing and health

Surfaces

- Plasterboard
- Cement render
- Blockwork
- Brickwork
- Concrete
- Steel
- Ceramic tiles
- Other coated surfaces



EpiMax 330

Latest solventless high build technology providing high chemical resistance.

- Resists a wide range of chemicals
- Can be reinforced with glass surfacing veil
- Food safe during and after application phase
- Wide range of colours
- Easily cleaned and sanitised

EpiMax 330RF

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

- 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 333WB

A fast hardening two-pack water based epoxy system that provides excellent protection to all forms of concrete.

- Fast installation
- Roller or airless spray application to 250 microns
- ZERO VOC compliance
- Food safe during and after application phase
- Ideal for walls and floors - wide range of colours

EpiMax 600WB

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

- Waterborne clear 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

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

EpiMax 777UHD Gloss

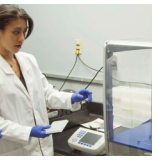
A high performance, gloss, two-pack solventless polyurethane coating that provides a durable gloss finish to architectural areas.

- Thin film chemistry – 150 microns
- Low VOC compliance
- Fast hardening
- Excellent scuff resistance – light fast
- Re-coatable - wide colour range

EpiMax 777UHD Matt

A clear UV stable polyurethane finish for application directly onto concrete, plaster and wood or as a seal coat on a variety of wall and flooring systems.

- UV stable matt finish
- Good abrasion and impact resistance
- Resistant to hot water
- Excellent scuff resistance
- Low VOC compliant



EpiMax 920

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

Cleaned, sanitised and integrated wall and floor surfaces

What is the difference between cleaned and sanitised?

Cleaning, is the process of removing physical residue and contaminants such as dirt, dust, grease, food, bacteria and water from a surface. Cleaning is the essential first step in any cleaning and sanitisation procedure.

Sanitisation, is the additional process required to reduce viable microbial contaminants to an acceptable level. All surfaces must be pre-cleaned for the sanitisation procedure to be effective.

It is well known that clean, joint- free internal surfaces are critical in a great variety of environments and industries. The finishes on walls and floors must be free of, and impervious to, dirt, dust, grease, food, bacteria and water. They must be smooth and have no roughness, edges or discontinuities.

Generally, industrially clean rooms need only be kept clean. They must meet the standards for the particular processing or assembly operation.

However, in healthcare, pharmaceutical, food processing and cosmetics, for example, the facilities must be cleaned and sanitised.

And these surfaces must also be capable of being effectively sanitised on a regular basis.
They must resist the sanitisation process itself, both chemically and thermally.

Clean surfaces are critical in preventing the contamination of food products and lowering the risks related to HAI (Hospital Associated Infections). Walls and floors can facilitate the sanitisation and disinfection processes employed in healthcare, pharmaceutical and food processing applications.

Smooth and continuous surfaces can promote sustainability through reduction in the amount of cleaning chemicals and water required to properly clean and sanitise the surfaces. These systems also incorporate technologies designed to reduce the risk of moisture-related adhesion failure on porous surfaces.

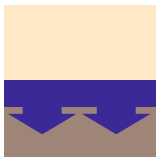
These standards also apply to the wall/floor junction. Coved bases at wall/floor joints are required in sanitary areas so that contamination doesn't stand in corners or at edges of the floor. The junction of all walls and floors must be seamless, smooth and cleanable, and where required, capable of being sanitised.



Environmentally sustainable

Resistance to abrasion and impact

Durable



High adhesion

Resistance to chemicals

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