

Education and Learning Facility Protection Systems

Engaging education on a firm foundation

EpiMax 222

EpiMax 330

EpiMax 333

EpiMax 333WB Express

EpiMax 444

EpiMax 465

EpiMax 840

EpiMax 999WB

EpiMax



What needs to be considered in the selection of an Education and Learning Facility Protection System?

• 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 wall and flooring 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).

Design life - budget compliance

The first important question to ask when selecting a new wall or floor 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 routes through which oil, grease and other chemicals can begin the degradation process on concrete remarkably quickly.

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

• Flooring slip factor - safety under foot

It is important that the flooring system provides adequate traction in the working conditions of the facility. Traction is greatly influenced by contaminants (water, oil, dust etc) and standards exist for particular environments.

Newer systems can offer enhanced traction and are still easy to clean.

Durability

The specification for any flooring system must address the mechanical performance requirements including impact and abrasion resistance. Any protection system applied to concrete must exhibit excellent adhesion and have a bond strength that exceeds the tensile strength of concrete.

• Inherent chemical resistance

Concrete is a widely used engineering material. However whilst strong in certain mechanical aspects, unprotected concrete is extremely susceptible to a wide variety of chemical attack.

The specification for any wall or floor protection system must address the chemical resistance requirements.

EpiMax offers a range of protection systems that cater to project requirements.







Education develops faculties and powers by teaching, instruction or schooling to qualify, by instruction or training, for a particular calling or practice. Education focuses on the individual and their ability to make a contribution. Training ultimately gives the particular discipline, instruction, practice etc designed to impart true proficiency and efficiency. Training focuses on a specific, finite task.

A recent study by education leaders in the United States concluded that aging and restricted facilities were top change drivers in the field of public education and training. This factor was only exceeded by the quality of the teaching process itself and ultimately, the availability of financial resources.

As the western world faces the prospect of increasingly tighter budget controls, it means that education infrastructure spending should be focussed on design principles that meet future needs and minimise the total cost of ownership (TCO).

The essential goal for private and public education and learning infrastructure investment is delivered value for money in the long term.

And the complete education and learning environment starts from the floor up.

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 Type of facility Preschool K-12 University Technical college Safety training centre Workplace training centre Film and television Section of facilities Entrances and hallways Recreation rooms Computer rooms Locker rooms Cafeterias and auditoriums Workshops Laboratories Plant rooms Fire stairs Art studios Parking areas



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
- Tough and abrasion-resistant; excellent for heavy traffic
- Ideal for wet areas, ramps etc



EpiMax 330

Latest solventless high build technology providing high chemical resistance.

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



EpiMax 333

A two-pack high solids epoxy coating system demonstrating excellent adhesion and general durability.

- Roller or airless spray application to 300 microns in two coats
- Heavy duty resistance to a wide range of industrial chemicals
- Good mechanical performance
- Variable slip resistance available in flooring applications
- Wide range of colours



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 wall and floor 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



EpiMax 444

The proven solution for tough industrial applications where end users want to eliminate floor maintenance issues. Provides a bright, durable, impervious and chemically resistant floor.

- Professional application at between 2 4 mm
- Fast application minimal downtime
- Chemically and mechanically strong
- Hygienic dense, impervious, seamless
- Easily cleanable



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 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
- Easy to clean and sterilise



EpiMax 840

A clear, UV stable polyaspartic finish for application directly to prepared or coated concrete. Fast hardening.

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



EpiMax 999WB

The maintenance free solution for general car park floor protection which demonstrates excellent adhesion and general durability.

- Fast installation
- Mechanically durable, high surface integrity and non dusting
- Chemically resistant to automotive oils and fluids
- Minimal tyre squeal non marking
- Environmentally sustainable maintenance free

Test Methods

AS/NZS 4586:2013

Slip resistance classification of new pedestrian surface materials.

This Standard provides a means of classifying pedestrian surface materials 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 pedestrian surface materials 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 Education and Learning Facility Protection Systems has 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 pedestrian surfaces classified in accordance with AS/NZS 4586. It recommends the minimum floor surface classifications for a variety of locations, and includes a commentary on the test methods set out in AS/NZS 4586, as well as information on the consideration of ramped surfaces. Published in conjunction with the CSIRO.

AS/ISO 9239.1 2003 Reaction to Fire Tests for Floorings. Critical Radiant Flux Energy.

To meet the Building Code of Australia, floor materials and floor coverings meet certain minimum Critical Radiant Flux (CRF) energies, and for non-sprinklered buildings, a maximum smoke development rate.

The test method for these tests involves heating the horizontal test sample along its length with a radiant panel and then igniting it at the hot end. The sample is allowed to burn until the flame goes out (extinction). The heat energy measured at the point of extinction is the Critical Heat Flux (CHF), also called the Critical Radiant Flux (CRF) in the Building Code of Australia.

Smoke is measured over the duration of the test. The total amount of light extinction (measured as a percentage) due to the smoke obscuring a light beam in the flue is multiplied by the time of the test to give the result (in percent minutes).

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Environmentally sustainable



Resistance to abrasion and impact



Durable



High adhesion



Resistance to chemicals

