Low VOC Performance Protection Systems

Green Certified Protection for the future

EpiMax 222 EpiMax 330 EpiMax 333WB EpiMax 333WB-SR EpiMax 465 EpiMax 777UHD EpiMax 999UVX EpiMax 999WB





What needs to be considered in the selection of a Low VOC 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 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 protection 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 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 moisture, salt, acid rain 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.

• Inherent chemical resistance requirement

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 protection system must address the chemical resistance requirements. EpiMax offers a range of protection systems that cater to project requirements.

Mechanical performance

The specification for any protection 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.

• 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.

💓 EpiMax





Significant research in coatings technology has resulted in the development of high performance low and very low VOC coatings for industrial and commercial applications. This development work has been accelerated by the growing awareness of the impact of climate change on our community.

The **Green Building Council of Australia** is a national, not-for-profit organisation that is committed to developing a sustainable property industry for Australia by encouraging the adoption of green building practices. It is uniquely supported by both industry and governments across the country. The GBCBA's mission is to develop a sustainable property industry for Australia and drive the adoption of green building practices through market-based solutions. This is accomplished by encouraging and recognising the specification of finishes that minimise both the contribution and the level of VOC within the building envelope.

EpiMax is your source for the latest proven developments in performance 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).

At EpiMax we pride ourselves in the chemical technology of the systems we offer, the knowledge value involved in their use and our overall responsiveness.

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



System Performance Chart

EpiMax Heavy Duty Low VOC Range

Applications

Typical industries include:

- Food and beverage production
- Mining and resources
- Aircraft servicing and maintenance
- Commercial kitchens
- Chemical processing
- Cement plants
- Distribution centres
- Apartment and hotel construction
- Hospitality
- Local government
- Parking garages
- Correctional facilities
- Paper manufacturing
- Power generation
- Commercial laundries
- Port and terminal operations
- Water treatment and supply
- Waste water facilities
- Healthcare and retirement
- Transfer stations
- Medical and research laboratories



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 protection 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
- Variable slip resistance available
- Wide range of colours
- Express grade available

EpiMax 333WB

A durable two-pack water based epoxy protection 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
- Fast return to service
- Hazmat free chemistry
- Long lasting durability
- Good adhesion to damp concrete
- Non slip version available

EM 333WB-SR

This system has been proven as an aviation industry concrete floor protection system for commercial and military hangers and support facilities.

- Excellent adhesion
- Hazmat free/non flammable
- Excellent abrasion resistance
- Meets AS 4586 Slip Resistance standard
- Meets GBCA Low VOC standard
- Meets BCA CRF Fire standard
- Skydrol resistant







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
- Non-tainting, non-dusting



A high performance, gloss, two-pack solventless polyurethane coating that provides a durable gloss finish to coated and uncoated concrete.

- Thin film chemistry 150 microns
- Hazmat free chemistry
- Fast hardening
- Non yellowing, UV stabilised external applications
- Excellent scuff resistance
- Re-coatable



EpiMax 999UVX

A hybrid protective sealer based on clear water-based epoxy/acrylic chemistry suitable for coated, stained or ground concrete and masonry surfaces.

- Fast hardening
- Long-lasting
- Excellent adhesion to concrete
- Haz-mat free technology
- Simple mixing easy application
- Gloss or matt finish



EpiMax 999WB

The maintenance free solution for general concrete protection demonstrating excellent adhesion and general durability.

- Fast installation guarantees sealed concrete surface
- Mechanically durable, high surface integrity and non dusting
- Good general chemical resistance
- Minimal tyre squeal non marking
- Environmentally sustainable maintenance free

Standards Compliance

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 Low VOC Performance Protection 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 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).

The range of EpiMax Low VOC Performance Protection Systems have been tested to AS/ISO 9239.1 2003.





Environmentally sustainable



Resistance to abrasion and impact



Durable



High adhesion



Resistance to chemicals



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