Food and Beverage Facility Protection Systems

Product safety and security from the ground up

EpiMax 222

EpiMax 225 Express

EpiMax 330

EpiMax 330 Fast

EpiMax 333AR

EpiMax 333WB

EpiMax 333WB Express

EpiMax 444

EpiMax 465

EpiMax

What needs to be considered in the selection of a Food and Beverage Facility Protection System?

• Design life - budget compliance

The first important question to ask when selecting a food and beverage 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, food, bacteria 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.

• 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.

• Safety under foot but still easy to clean

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

• Inherently food safe

All floor and wall protection systems must be inherently food safe and chemically inert. They must not support microbial activity or taint food stuffs.

• 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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Global market forces *continue to drive the development and evolution of the food and beverage industry.*

Consolidation, changing consumer preferences and increasing government regulation are changing both manufacturing and business strategy. In this fiercely competitive market, manufacturers must offer a greater variety of products than ever to meet consumer demand.

As concerns over food safety and security grow, manufacturers must consistently and cost-effectively produce higher quality products.

Manufacturers also want to have a positive impact on society and the environment. They want to turn sustainability challenges into business advantages. At the heart of a well-planned sustainability program is the belief that corporate investment in environmental and social responsibility must strengthen business performance to be successful. It must reduce environmental impact, achieve genuine economy in the use of resources, deliver a return on investment, and enhance the equity of the manufacturer.

EpiMax is your source for the latest proven developments in sustainable 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.

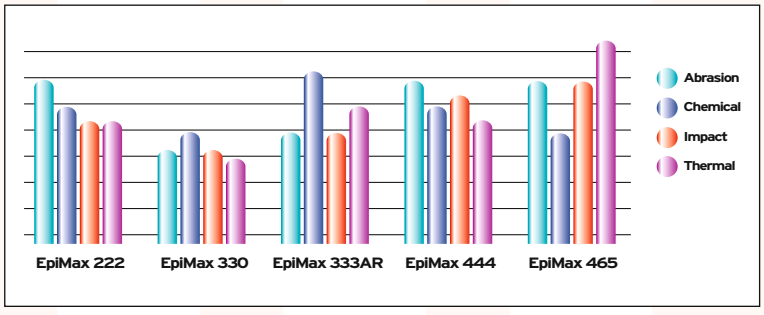
This success has been proven through partnerships with forward-thinking architects, consultants, engineers, application contractors, project managers and materials testing agencies. We believe in teamwork, respect and integrity.

Our primary focus is

- Floor Protection Systems
- 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 Food and Beverage Flooring Range

Applications

Typical industries include:

- ***Commercial kitchens***
- ***Chicken processing***
- ***Meat processing***
- ***Fish processing***
- ***Breweries***
- ***Fruit juice processing***
- ***Wine making***
- ***Commercial catering***
- ***Bakeries***
- ***Cheese processing***
- ***Milk factories***
- ***Confectionary***
- ***Fruit and vegetable industry***
- ***Vegetable oil industry***
- ***Sugar refineries***
- ***Training kitchens***
- ***Fast food kitchens***
- ***Hospitality***
- ***Bottled water packaging***

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 225 Express

New two-pack solventless high build epoxy flooring system demonstrating chicken fat resistance and return to service.

- Roller or trowel application to 5 mm
- Rapid return to service
- Exceptional resistance to a chicken fat, organic fatty acids and industrial chemicals
- Non-tainting to food stuffs during application
- Anti-microbial formulation
- Variable slip resistance available

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 330 Fast

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

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

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 available
- Potable water approved

EpiMax 333WB

A 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
- Hazmat free chemistry
- Long lasting durability
- Good adhesion to damp concrete
- Can be applied in non slip finish
- Replaces solvent based systems in many applications

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

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

*Food is consumed hundreds, even thousands of kilometres from its origin. **Trust** is everything. All food should be "trustworthy," in terms of where it came from - and everyone involved in the food supply chain should be **accountable** for their actions. From both logical and regulatory perspectives, sanitary conditions are essential during food or beverage processing. That pertains not only to equipment but also to the surroundings.*

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

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

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

All surfaces in areas where foodstuffs are handled 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 4586:2004
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 Food and Beverage Flooring Systems have been tested to AS/NZS 4586:2004.

HB 197 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

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