



Museum and Archive Floor Protection Systems

Zero VOC, Zero Outgassing

Light Duty Coating Systems

Medium Duty Coating Systems

Heavy Duty Topping Systems

Conductive Topping Systems



EpiMax



What needs to be considered in the selection of Museum and Archive Floor Protection Systems?

- **Zero VOC content and zero outgassing potential**

Some objects are vulnerable to volatile organic compounds (VOCs) released by coatings.

VOCs compounds can damage antiques, art objects and artefacts. Since floors represent a large flat area in any storage facility and if the floor protection system has a high VOC content, they have the potential to seriously affect the composition of the enclosed air space and potentially, react with stored items.

Outgassing of any reactive chemicals must be eliminated for the same reason. This particularly applies to formaldehyde and xylene.

EpiMax has developed advanced new flooring and wall coating solutions for these critical environments that eliminate all VOC outgassing.

- **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.

- **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.



Museums, archives and galleries store irreplaceable artefacts, objects, documents and art that are part of a nation's, an organisation's or an individual's heritage.

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 GBCA'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.

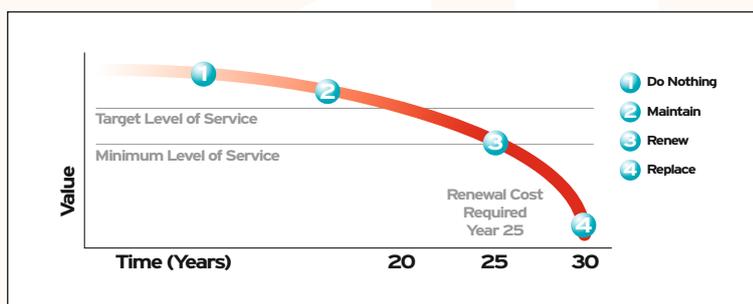
EpiMax has built its reputation on a construction engineering foundation. Our experience has been forged on an impressive variety of civil, environmental, industrial, mining, defence and general services construction.

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

Typical Asset Depreciation



Applications

- *Private art collections*
- *National art galleries*
- *Natural history museums*
- *Maritime museums*
- *Museums*
- *National archives*
- *Rotating displays*
- *University archives*
- *Historical societies*
- *Religious archives*
- *Educational facilities*



Lighter Duty Coating Systems

Durable two-pack water based epoxy coating systems built on novel technologies that exhibit zero VOC content and zero outgassing potential. The system is also available in a non-skid version for areas requiring enhanced traction control and safety. This version is applied in the same manner as the standard product but will provide a finish to Class W (LOW contribution to the risk of slipping when wet). Suitable for lighter duty applications in critical archival projects.

- Self priming
- Fast installation - roller or spray
- Hazmat free/non flammable
- Good resistance to marking
- Water based - odourless and food safe
- Fully cross-linking system - good abrasion resistance
- Environmentally friendly
- Meets GBCA Low VOC standard
- Tested to ASTM E 595 Outgassing standard
- Meets AS 4586 Slip Resistance standard
- Meets BCA CRF Fire standard
- Meets BS 8204-6:2008 Type 2
- Suitable for light foot traffic, occasional rubber tyres
- Colour choices available



Medium Duty Coating Systems

Performance two-pack composite epoxy coating systems built on novel technologies that exhibit zero VOC content and zero outgassing potential. These systems are also available in a non-skid version for areas requiring enhanced traction control and safety. This version is applied in the same manner as the standard product but will provide a finish to Class W (LOW contribution to the risk of slipping when wet). Suitable for demanding applications in critical archival projects.

- Self priming
- Fast installation - roller or spray
- Good resistance to marking
- Odourless and food safe
- Fully cross-linking system - high abrasion resistance
- Environmentally friendly
- Meets GBCA Low VOC standard
- Tested to ASTM E 595 Outgassing standard
- Meets AS 4586 Slip Resistance standard
- Meets BCA CRF Fire standard
- Meets BS 8204-6:2008 Type 2
- Suitable for regular foot traffic, fork lift traffic, plastic-wheeled trolleys
- Good resistance to occasional chemical spills
- Colour choices available





Heavy Duty Topping Systems

Multi-layer two-pack and three-pack composite epoxy topping systems built on novel technologies that exhibit zero VOC content and zero outgassing potential. These systems are also available in a non-skid version for areas requiring enhanced traction control and safety. This version is applied in the same manner as the standard product but will provide a finish to Class W (LOW contribution to the risk of slipping when wet). Suitable for the toughest applications in critical archival projects.

- Self priming
- Fast installation - specialist techniques
- Odourless and food safe
- 4-6 mm thickness - highest impact resistance
- Environmentally friendly
- Meets GBCA Low VOC standard
- Tested to ASTM E 595 Outgassing standard
- Meets AS 4586 Slip Resistance standard
- Meets BCA CRF Fire standard
- Meets BS 8204-6:2008 Type 4-6
- Suitable for constant fork lift traffic, hard plastic-wheeled trolleys, general impact
- Good resistance to chemical spills
- Suitable for hot water cleaning
- Colour choices available



Conductive Topping Systems

Multi-layer two-pack and three-pack static dissipative (SD) and electrostatic conductive (EC) systems that also offer zero VOC controlled multi-layer systems where zero VOC content and zero outgassing potential is required. These unique systems are required in certain manufacturing and environmental conditions that require the use of a static control system such as laboratories, hospitals and cleanrooms.

- Self priming
- Fast installation - specialist techniques
- Odourless and food safe
- 2-4 mm thickness - good impact resistance
- Environmentally friendly
- Resistance to earth to suit SD and EC
- Meets GBCA Low VOC standard
- Tested to ASTM E 595 Outgassing standard
- Meets AS 4586 Slip Resistance standard
- Meets BCA CRF Fire standard
- Meets BS 8204-6:2008 Type 3
- Suitable for regular foot traffic, fork lift traffic, plastic-wheeled trolleys
- Good resistance to occasional chemical spills
- Colour choices available

Standards Compliance

Volatile organic compounds (VOCs) are chemicals used in the manufacture of certain building products, coatings and sealants as well as interior furnishings. "Volatile" means that these chemicals evaporate or can easily get into the atmosphere at ambient temperature and pressure. "Organic" means these chemicals are carbon based and the term "chemical emissions" refers to VOCs as they evaporate into the surrounding atmosphere from the source.

Within buildings, many chemical compounds have high enough vapour pressure under normal conditions to significantly vapourise and enter the indoor air. VOCs that escape from these products into the interior will contribute to internal air pollution.

The US Environmental Protection Agency has found concentrations of VOCs in indoor air to be many times greater than in outdoor air.

The quality of indoor air is critical for both human occupation and preservation of sensitive archives and creative works.

The CDPH Standard Method v1.1, prepared by the Indoor Air Quality Section, Environmental Health Laboratory Branch, California Department of Public Health sets maximum allowable concentrations for various VOCs.

The Test Method for VOC content determination is SCAQMD Method 303-91 Determination of Volatile Organic Compounds (VOC) in Various Materials as referenced by South Coast Air Quality Management Division (SCAQMD) Rule 1168.

The VOC content of the sample expressed in grams of VOC per litre of coating is calculated by using the equation:

$$\text{VOC, g/L (of coating)} = \frac{(100 - N - W - \text{Ex})(D_m)(1000)}{100 - \frac{(W)(D_m)}{D_w} - \frac{(\text{Ex})(D_m)}{D_e}}$$

The VOC content of the sample expressed in grams of VOC per litre of material is calculated by using the equation:

$$\text{VOC, g/L (of material)} = (100 - N - W - \text{Ex})(D_m)(10)$$

The VOC content of the sample expressed in weight percent is calculated by using the equation:

$$\text{VOC, \% (w/w)} = 100 - N - W - \text{Ex}$$

Definitions of terms used in the calculations:

N = Weight percent nonvolatiles

W = Weight percent water

Ex = Weight percent exempt compound

D_m = Density of sample, g/mL

D_e = Density of exempt compound, g/mL

D_w = Density of water, g/mL

The range of EpiMax Archival Systems have been tested for total VOC content and shown to exhibit less than 1 g/litre.



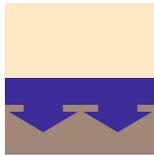
Environmentally sustainable



Resistance to abrasion and impact



Durable



High adhesion



Resistance to chemicals



Zero VOC



EpiMax Systems Pty Limited

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