Coatings for Aggressive Interiors

Drywall is the most common wall surfacing material used in modern construction, so it is no surprise that manufacturers have developed a wide range of products to meet the varying performance requirements of a given project when coating this substrate.

While conventional latex systems perform well in low-contact areas like residential bedroom walls and hallways, more aggressive environments will require a higher performing system.

High Traffic Interior

High-traffic interiors such as schools, commercial offices, and hotels require coatings with greater resistance to marking and burnishing. Interiors exposed to high-moisture and detergents such as hospitals, restaurants and bars will require systems with greater moisture and chemical resistance.

The following guide provides best practices for specifying coatings for aggressive interior environments.

Institutional Low Odor/VOC

High performing latex products with **virtually zero VOC (<10 g/l)** *are a good choice for high-contact interiors where an environmentally-friendly alternative is*

required. These products offer much greater durability, scrub resistance and cleansability than conventional latexes and are ideal for applications in occupied spaces or sensitive areas such as schools or retirement facilities. These products also provide an ideal option for projects where environmental impact must be minimized.

High-Performance Latex

High-performance latex finishes *offer improved resistance to marking and burnishing over Institutional Low Odor/VOC systems, however, may contain a slightly higher VOC content (some* **high performing latex products** *are also available in Low/0-VOC formulations).*

These higher performing products are better choices for applications in high-traffic commercial and institutional spaces such as commercial offices, and hotels. These products are ideal for areas that require greater cleansability and scrub resistance than Institutional Low VOC but does not require VOC concentrations of less than 10 g/l.

Epoxy

Epoxy coatings are ideal solutions for aggressive interior environments where increased water or chemical resistance is required. Areas subjected to constant cleaning and exposure to detergents (such as hospitals and restaurants) or high moisture (such as indoor pools and commercial kitchens) would benefit from the increased chemical resistance offered by an epoxy coating system.

Waterborne epoxy chemistry has evolved substantially in recent years and high performing Waterborne epoxy systems are available on the market. While these systems generally do not perform as well as **conventional solvent-based epoxy systems** *in terms of durability, they offer a lower VOC alternative for applications where odor may be a concern.*

Coating Tips for Contractors

A good product specification alone does not guarantee a successful coating project. The surface preparation, evaluation of the substrate, the application, and even the environmental conditions can all have a huge impact on the outcome. Most of the factors listed above are dependent on the informed choices made by the coating contractor. Using the **MPI Architectural** *and* **MPI Maintenance** *repaint manuals to assist in the choices will help to produce a successful outcome.*

Coating Contractors

Surface preparation on architectural projects.

The majority of paint failures are directly related to improper and insufficient surface preparation, which usually results in a lack of adhesion of the applied coating. Using the MPI Architectural Coatings manual to determine the best surface preparation for the new surface, in the environmental conditions that you are working with, will allow for the highest performance of the chosen coating.

Surface preparation of a new substrate usually involves at least one of the following:

- *Patching, filling or repairing.*
- *Removing other surface contaminants such as form release agents, efflorescence, curing compound or other protective films.*
- *Cleaning off dirt or oils.*
- *Abrasion techniques for adhesion purposes.*

The MPI Manuals list the surface preparation required by the substrate to be coated, allowing for quick and informed decisions to be made.

Surface preparation on maintenance repaint projects.

In the case of maintenance repainting, the condition of a surface to be painted must be carefully evaluated prior to the selection of an appropriate surface preparation method, as well as the selection of a coating system. The condition of an existing coating is a major factor in the performance of the newly applied coating.

In the MPI Maintenance Repaint Manual, you will find the Degree of Surface Degradation (DSD) levels to assist in making the right choices. In most cases, the assessment of Degree of Surface Degradation (DSD) level leads to the assignment of the level or type of surface preparation required.

Once the DSD of the surface is confirmed, the manuals can then be used to determine the level of Surface Preparation required from the (MPI RSP) Standards.

The MPI Repaint Surface Preparation Standards (MPI RSP)

The MPI RSP standards cover everything from general hand cleaning to more specific Sap/Pitch bleed and straining treatment. They not only instruct on how to carry out the surface preparation but also list the makeup of the solutions required to carry it out (if applicable).

Priming or painting of a substrate shall take place as soon as possible after the surface preparation. Dust, salts, and other airborne materials, from industrial,

agricultural, and other sources can contaminate the surface in a period ranging from days to hours, depending on the location.

Environmental Conditions

Temperature and humidity during application are important to the coating's film formation, which controls adhesion, penetration, durability, and appearance. The MPI Manuals provide information on minimum temperatures that are required over the total drying period of the paint, they also cover dew point and surface temperature requirements.

For more information or to subscribe to the MPI Manuals please click HERE