

## Painting is Hard – Let APCA Help!

A Property Owner and Manager's Guide  
to Coating Maintenance





# Why do you need this guide?

The paint or coating on a building is sometimes viewed as just an aesthetic necessity. While it is true that a well-applied coating gives your building an attractive and professional appearance, the coating of a building is about so much more than that.

Using a product that has been tested to established standards for cleaning and preparation can:

- Provide the ability to better forecast the lifecycle of the coating;
- Reduce the need to repaint sooner, making it more sustainable;
- Save you from serious and costly property damage, for example from water leakage;
- Protect the surface of your property from detrimental environmental effects; and
- Save you from a complete and extremely costly total paint failure.

This guide is full of useful information to get the most from your building coating, to also help you save time, money, and possible tenant dissatisfaction.



# Main Causes of Paint Failure

The majority of premature paint failures occur for these reasons:

- Wrong product specified for that particular substrate or exposure environment;
- Improper surface preparation;
- Ignoring required environmental conditions during painting operations.

Other failures could be attributed to:

- Topcoat applied before the undercoat is dry;
- Topcoat unable to bond to a glossy surface;
- Excessive coats of paint;
- Limited paint flexibility: this can be a result of excessive coating thickness;
- An excessively thick coat that prevents the undercoat from drying properly;
- A hard, rigid coating (ex. alkyd enamel) over a soft, flexible coating (ex. latex);
- Excessively high temperature during application causing rapid curing;
- Hard coating applied to soft or uncured primer;
- Moisture causing expansion of substrate;
- Over-spreading and over-thinning of the applied coating;
- Low quality, highly pigmented paint;
- Indoor paint used on exterior substrates; or
- Use of epoxy paint in direct sunlight.

MPI standards identify five "Degrees of Surface Degradation" to quantify how badly the substrate or coating has deteriorated, and thus determine how rigorous the surface preparation or priming work will need to be. These five DSD's are used to determine the amount of surface preparation required BEFORE painting.



# Main Causes of Paint Failure

## ! APCA Tips:

- In many instances it is not the paint that lacks in performance. All too often, the problem can be attributed to flaws in design or construction, or due to poor application procedures.
- A new coat of paint shrinks during the curing process, exerting stress on the existing film. If the existing film has insufficient adhesion, that stress will cause de-lamination.
- All too often, premature failures happen because coatings were applied when ambient or surface temperatures were too cold, too hot, or relative humidity was too high.
- A very common exterior concrete surface failure is caused by sacking in the original construction. The sacking deteriorates leaving a powder on the surface, which can cause de-lamination.



# The Importance of Repaint Surface Preparation

The service life of the coating is directly related to the surface preparation. The importance of proper surface preparation for any repaint project cannot be overemphasized. However, first, and of equal importance, the cause and type of damage to the previous coatings and substrate must be identified and corrected. Applying new paint to a surface with inherent structural or design flaws generally leads to early failure of the new coatings. Once the cause is identified and repaired [where necessary], surface preparation can be planned and carried out. Various factors influence the degree and method of surface preparation.

APCA Inspection Services can help with this.

**! APCA Tip:** There is a limit to the number of coats of paint that a surface can support. As the paint thickness builds up over time and the coatings get older, they lose their flexibility.



# Specifications and Choosing the Correct Paint Systems

The importance of specifications cannot be understated. A well-written specification will be of benefit not only to the owner of the property but also to the contractor.

Making the specification very concise and clear should be the goal of the writer.

When the specification includes all of the very pertinent details necessary for the contractor to do an ideal job, all parties can be satisfied. Whether the specification is written by an architect, specifier, or inspector there are many details and components that cannot be forgotten.

Choosing the correct coating system is the top priority for any specification.

APCA inspection services can help with this.

**! APCA Tip:** Coatings specifications are tailored site-specific. Using a set of tried and tested specifications on one job successfully does not mean it will work on all projects, many factors have to be considered.



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APCA uses MPI systems and guidelines on all specifications. Choosing a quality, performance tested, and approved product can save you time and money. MPI has developed Testing standards and procedures to identify/determine the quality of the paints and coatings for you. A list of all MPI Approved Products [APL] is available from [MPL.net](http://MPL.net) The MPI assures a level playing field when it comes to testing products for the APL as the tests are carried out in accordance with the MPI Testing Standards and the ASTM Testing Procedures, using ASTM compliant testing equipment.





# APCA Inspection Services Can Help With Specifications, Bid Tours, and Inspections for Your Project:

## Specification

A full, comprehensive, and site-specific coatings specification based on MPI Standards and Systems:

- Identifies the scope of required work, surface preparation, and application procedures;
- Outline precisely the work and the methods to be used.

## Bid Tour (owner's selected painting contractors)

On completion of the specification and with approval by the owner's representative:

- Advice on what to look for when choosing a paint contractor;
- Clearly identifies areas of concern and answers any questions arising from the specification;
- Allows for any addendums to the specifications.





# APCA Inspection Services Can Help With Specifications, Bid Tours, and Inspections for Your Project:

The APCA Quality Assurance Inspection Warranty (2 years; provided to APCA Members)

The APCA QA Inspection includes regular site visits/inspections, followed up with clear and concise reports sent to all concerned parties.

- Inspection of substrates to ensure adequate surface preparation.
- Temperature, moisture, and humidity tests to ensure conditions are appropriate.
- Ensure that products used are the specified MPI approved products.
- Overview of workmanship to enforce conformance to MPI standards.

For more information on the APCA Inspection and Specifications and how we can help with your painting projects, email [marketing@apca.ca](mailto:marketing@apca.ca) or call 403-370-7953.