
A GUIDE TO COATING SPECIFICATIONS



An introduction to coating specifications

A well-prepared specification sheet plays an essential role in completing a coating project with success. A quality specification is clear, concise and accurately details the work to be completed on a project. If those standards aren't met, you risk your project not meeting your desired goals.

As an asset owner or project manager, understanding the elements of a specification and how to evaluate it is crucial. Whether your specification sheet is completed by an engineering firm, coating manufacturer or coating contractor, the standards remain the same. Here we'll outline the purpose of a specification sheet, give a high-level look at the information included in the specification and share important tips for evaluating a specification for your next project.



The purpose of a specification

Before the specification writing process begins, owners must consider and clarify the goal of the project. Is corrosion a concern on a fuel storage tank? Does a bridge need a service life of a minimum of twenty years before the next re-coating? Are aesthetics and ability to withstand the elements a driving force? Clearly define what the goals of the project are, and this should guide the specification writer's process.

Keep this purpose in mind when evaluating the specification sheet as well. A coating specification should make it clear to the coatings contractor which goals you want your project to achieve and sets the contractor up for success to meet those goals.



The elements of a specification:

General Requirements

Before diving into the coating information, the specification will outline the high-level and administrative elements of the project. This is just as important as the protective coatings themselves, as this information will ensure a smoothly run project that meets safety and environmental standards. We won't go into every single section and subsection of this part of the specification; this is meant to give you a high-level look at the content you'll be evaluating.

- **Summary of Work.** This gives a brief statement on the asset to be coated, its location and worksite, which parts will be coated or replaced, any work to be done by outside contractors and the sequence of the work. The Summary of Work also includes whether the asset will continue operation, or be shut down for the duration of the project.
- **Project Coordination and Meetings.** The administration processes are laid out for project meetings, including who coordinates the meetings, agendas and locations. An RFI (Request for Information) procedure is also expounded upon, making it clear who provides answers and in what format.
- **Submittals.** These include Technical Submittals (shop drawings, product data, sample materials), Informational Submittals (laboratory tests, design analysis) and Administrative Submittals (maintenance agreements, copies of industry standards). This outlines the language, quality standards, details included and the engineer approval process.
- **Temporary Barriers and Control.** Here is where safety and security measures for the job site are explained. This includes protection of the property as well as barriers to protect the worksite and prevent unauthorized entrances. Environmental controls outline measures to prevent dust, debris and pollution contamination, and traffic controls expound upon the maintenance of roadways and parking for the duration of the project.
- **Equipment and Materials.** Not yet getting into the products to be selected, this outlines the administrative procedures for selecting products for the coating project, including evaluation of existing equipment and materials.



Other brief sections of the specification sheet are the procedures for Construction Photographs, Warranties, Project Identification and Signs, Field Offices and Sheds, Contract Closeout and Definitions and Standards.

The elements of a specification: Existing Conditions and Finishes

The latter two sections of a coating specification will go over Existing Conditions and Finishes. In a specification, Existing Conditions addresses the “demolition” of a structure, which can simply mean the removal of hazardous previously applied coatings. Then, the Finishes section explains the protective coatings the contractor will use on the asset.

Once again, we won’t itemize out every single section and subsection; we’ll provide a bird’s eye view of what these sections should cover so you know what to look for.

Existing Conditions will outline the following information:

- An explanation of the job site condition and why previous coatings or other elements of the asset need to be removed.
- Procedures to ensure the safety of the job site and personnel on site.
- Plans to maintain proper traffic and roadways usage.
- How the materials will be safely disposed of.
- Procedure for the demolition.
- How to conduct clean up and repair post-demolition.
- The schedule for the demolition.



Finishes will outline the following information:

- The applicable standards from the ANSI, ASTM, SSPC, NACE and NSF for the coating project.
- Plans for the submittals and quality assurance of products.
- Plans for the delivery, storage and handling of materials.
- Regulatory requirements for the project, such as addressing lead or asbestos content.
- Acceptable manufacturers for coatings.
- The specific surfaces to be coated.
- The surface preparation necessary for each surface.
- The coating products to be used and at what DFT.
- The environmental conditions (atmospheric temperature, humidity) in which the coatings should be applied.
- Which surfaces will not be coated.
- How the inspections will be performed and at what hold points.
- Procedures for cleaning and repairs during the project.



Tips for evaluating specifications

Even when a specification includes all of the information on General Requirements, Existing Conditions and Finishes, there are still qualities that elevate a quality specification above others. Keep the following principles in mind when evaluating a specification for your next coating project.

Clear and concise

This is the most important guiding principle for a high-quality specification. In this context, clear and concise means including quantitative descriptors and hold points in the spec. For example, asking for a primer to be applied to an SSPC SP-10 surface would be considered clear and concise, as opposed to simply requesting a “clean” steel substrate. Clean is too subjective and can lead to misunderstandings and lower quality coating work; SSPC SP-10 is a quantifiable, measurable standard.

Correct coating recommendations

The primer and finish coatings should match the surface prep requirements and substrate material. This may seem simple and obvious, but may not come to fruition if a specification writer doesn't have a rich understanding of industrial coatings or if an incorrect coating has been used in the past. Keep an eye out for these inconsistencies, such as a steel coating recommendation for a concrete surface or a rust-adhering primer recommendation for a near-white blast surface prep. This will ensure coatings are used in their optimum environments.

Contractor certification requirements

To ensure you're pulling from a qualified pool of contractors, verify that specification requires contractor certifications. These are the best way to gauge the reliability, business credentials and skills of the painters on the project, as they come from the strict standards of a professional organization. Standard certifications include SSPC Q1, Q2 and QS1 — here's a refresher on the specifics of each certification. By including these requirements, you'll ensure your contractor is capable of executing the work to the quality and safety requirements laid out in the specification.



Realistic schedules

As an asset owner, you naturally want to move your coating project forward as quickly as possible. But unrealistic schedules can cause a domino effect of mismatched expectations and lack of preparations for longer shutdowns, so heading them off with realistic schedules from the beginning is a must. A specification writer with experience in coating projects, such as those from a coating contractor, has an understanding of actual timing on equipment set up, cure times and inspections in the field. Verify schedules with a coating contractor to ensure the specification is realistic and achievable for all teams involved.

Sole specs only when necessary

The optimum time to use a sole spec — requesting a specific coating product, as opposed to a general coating category — is when the product is the only one of its kind. If there are multiple iterations of a coating type and the specification writer does a sole spec anyway, this takes away competition and in turn, drives up the price of the material. If you see a sole spec on your specification, inquire about its availability and only employ this method when there are no other product options on the market.

Thorough — but not micromanaging

There is a secondary component to the “clear and concise” directive for specifications. Specs should clearly delineate the project, but if the specification gets too detailed in directing means and methods, it can put the efficiency of the project at risk. This over-detailing can take many forms: Saying coating technicians must arrive at 7:30 am, or saying there must be a specific number of workers on the job site. Coating contractors have their own means and methods for projects, influenced and refined from years in the field. Leaving those granular details up to the contractor allows their team to complete the job in the most efficient way possible — leaving just enough flexibility to employ their expertise.



Get in touch with an industrial coatings professional

Asset owners and project managers evaluate many complex elements of coating projects — but it doesn't need to become overwhelming. For a guide to the entire maintenance and management of an asset with industrial coatings, download our [Guide to Management and Maintenance for Assets with Protective Coatings](#). Or for more insights on evaluating a coating specification for your upcoming project, [reach out to one of our industrial coating experts](#).

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