



You've been running your current facility for six months. Everything is going smoothly but you know scheduled maintenance is coming up. You're in charge of keeping a series of storage tanks in good working order.

You know that given the conditions of the facility and the materials stored in the tanks, they must be diligently guarded against corrosion. Otherwise, the resulting damage could cause millions of dollars worth of damage, endanger lives or lead you to run afoul of industry regulators.

In short, you're already convinced of the need for regularly scheduled facility maintenance, and you know your storage tank's coatings are no exception. You've already identified the project at hand. But where do you go from here? What's the first step in initiating the project? How do you move forward while making sure the work is done correctly, and that it will lead to long and effective corrosion protection for your facility?

It all starts with one important document. Your paint specifications sheet will outline the entire course of your project. This document must clearly and concisely lay out the conditions and processes that will lead to the desired outcomes mentioned above.

It is not a statement of how the project should look once completed, but rather a detailed explanation of the conditions necessary to achieve maximum service life and corrosion protection. The paint specifications are the template, and if something is wrong with the template, the finished product simply won't perform properly.

In the unfortunate event of a dispute between a contractor and a project owner, the project specifications will also likely be used to determine whether each party lived up to its responsibilities. This is just another reason to make sure your paint specifications are thorough and clear before a project gets off the ground.

## HOW SHOULD A GOOD SPECIFICATION BE WRITTEN?





Well-written paint specifications contain exactly as much detail as they need to make expectations clear and no more. Industrial coatings are more complex than they used to be, and paint specifications need to reflect that complexity.

At the same time, these specifications need to be unambiguous in order to avoid confusion about an owner's expectations. It should be clear to a contractor that the owner expects all aspects of the document to be lived up to, or else any recommended changes should be clearly mentioned during the bidding process.

Clarity of the paint specifications will reduce the likelihood that a contractor's work does not conform to expectations. A clear understanding between both parties will also reduce the probability that expensive change orders will need to be filed during the course of the work.

As mentioned before, specifications can act as legal documents in the case of a dispute, and any confusion resulting from unclear specifications may increase the risk of a breach of contract or a legal dispute.

But what are the actual elements of a specification document? What exactly is being specified?

## WHAT ELEMENTS MAKE UP A GOOD PAINT SPECIFICATION?





The specification sheet will determine the entire scope of a project. Specifically, for a painting project, this is broken down into three broad categories; the product to be used, the surface preparation required and how the product should be applied.

As mentioned earlier, a specification's worth is largely a matter of detail. Instructions must be detailed enough to avoid misunderstandings between the contractor and the owner, while not being unnecessarily restrictive. The following are details that may be included for each category of the specification.

#### The product

"Sole spec" sheets are written specifically for a certain product. This is a situation where "shall" or an equally stern term will be used to refer to the product to be used. In some instances, such as federally funded projects, sole spec sheets are not permitted. In these instances, a few options may be provided, or "may" will be used to indicate a tolerable substitute. Here a product may be referred to as "trade name or equal".

This section will also likely specify any unique product formulations the project requires. For instance, if strict VOC regulations are a concern, this section could stipulate a high solids or even 100% solids formulation.

#### Surface preparation

The most commonly accepted industry standards pertaining to surface preparation were devised by the Society for Protective Coatings (SSPC) and the National Association of Corrosion Engineers International (NACE). These are the gold standard for measuring the readiness of a surface to receive a coat of paint. These surface preparation standards range from SP 1 to SP 14, though a higher number does not necessarily indicate a higher level of surface cleanliness. Each standard indicates the method of cleaning as well as criteria for evaluating the outcome. For instance, an SP5/NACE 1 level of surface preparation is a white metal blast cleaning "that should leave the surface free of visible oil, grease, dust, dirt, mill scale, rust, coating, oxides, corrosion products and other foreign matter."



Because surface preparation is such a tremendously important step in the process (improperly preparing a surface is a surefire way to shorten the coating's service life) spec sheets must either stipulate the required level of surface preparation or direct the contractor to a product data sheet that does so.

#### **Application**

This is another section of the spec sheet that should heavily reference specific product data sheets. The ambient conditions, number of coats and mil thickness required for a successful application should be spelled out in that document.

The specification sheet should also specify the method to be used during application. If a specific formulation, such as a 100% solids formulation is called for, then this section should also include any notes on required application equipment such as plural component pumps. The contractor should also be made aware of any other challenges that may arise during the application process in this section of the specification sheet.

# WHO CAN I TALK TO ABOUT WRITING PAINT SPECIFICATIONS?





Finding out who to talk to about paint specifications is often one of the biggest hurdles for facility owners and managers. They simply don't know where to start. They usually rely on one of three options. They either reach out directly to a contractor, to an engineering firm or to the manufacturers themselves.

There are obvious issues with expecting a contractor to write paint specifications for a project, especially if they plan on being involved in the bidding process. The potential for conflict of interest between the contractor and owner is simply too high. That said, a trusted contractor is often able to point an owner in the direction of an engineering firm or manufacturer with whom they've worked in the past and whose specifications they have been satisfied with.

Engineering firms tend to write thorough, detailed project specification sheets, though typically at a cost. When it comes to the paint portion of the specification, some larger engineering firms will have a coatings specialist on staff. Others will, like contractors, fall back on trusted connections they've worked with in the past. This may mean going directly to the manufacturer to consult product data sheets or for an opinion on products. Say, for instance, which coating would be capable of standing up to a specific chemical concoction housed in a large storage tank.

Coatings manufacturers specialize in the sort of details hashed out in a paint specification sheet. They are familiar with the strengths and drawbacks of their products, ideal application conditions and the best methods for applying them. They also have a vested interest in writing specifications in such a way that their products live out their service lives and successfully guard against corrosion. Otherwise, repeat business is a pipe dream.

That said, owners should not assume that all manufacturer-generated spec sheets are created equal. Some will call it a done deal once they've talked to you on the phone, heard you describe the conditions in your facility, and then written you a recommendation for a product that will probably get the job done. In general, if a manufacturer makes a recommendation after only one phone call, it's time to cue the alarm bells.



A more detailed approach to a paint specification sheet is likely needed for a successful project. The writer should have a feel for the ambient conditions surrounding the asset in question. Personally inspecting current levels of corrosion, atmospheric conditions, frequency of wetting, operating temperature fluctuations and other site-specific concerns will lead to a better understanding of the stresses the coatings will be exposed to, and the level of protection needed to preserve the asset.

If an owner should decide to go to a coatings manufacturer for writing paint specifications, he or she should demand at least that level of detail. If the manufacturer is unable or unwilling to accommodate those standards, it would perhaps be wise to explore other options. Remember, the specification sheet will determine the entire scope and direction of your project. It's not a place to cut corners.

If you would like to discuss writing paint specifications further—the writing process, what you should expect from a completed document, or ask any questions you may have—please contact:

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### **ABOUT US COATINGS**

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Founded in 2000 in St. Louis, Missouri, US Coatings has grown from a two-man operation to a company doing business all over the country and with close connections spanning a vast number of specialty coatings markets. Despite this success, we're committed to remaining nimble enough to be able to take on any coatings challenge, large or small.

US Coatings is focused on building relationships with our customers so we're here before, during and after the sale with personalized attention to your project that our competitors can't match. More than just purveyors of paint, we take collaborating with our customers seriously, providing superior service throughout the course of your job.