

The Ongoing Battle of Corrosion on Steel Session Questions and Answers

Q: You mentioned that the humidity chamber can simulate corrosion protection for normal warehouse conditions. What would you define as normal warehouse conditions?

A: Good question. It's a little bit arbitrary but any type of enclosed area, indoor not outdoor, away from the elements that is somewhat temperature controlled. This is what I would recommend for normal warehouse conditions.

Q: My parts are often shipped overseas and will likely spend a couple weeks on a ship. What type of protection should I be using?

A: On a ship there is a lot of humidity in the air and water everywhere, usually the heat is high. In most cases I would recommend a wet film just to make sure there is no doubt in protecting the parts. Also, what you can do if you want to use a dry film through an aqueous process, you can do that. Put the dry film protection on your parts and then wrap it in VCI paper. It should be fine over its voyage.

Q: You said that everything needs to be removed from the surface of the part before a CP is applied, including pre-existing corrosion. What is the best way to remove that?

A: Typically, when you're removing oils and other contaminants like that from metal you need to use an alkaline product, just on the higher side of the pH scale. When it comes down to corrosion, you're going to need to use an acidic product on the lower end of the pH scale. You'll need to have more than one process if you're removing oil and corrosion. Make sure it is an acidic product for the corrosion.

Q: I know that a wet film type RP cannot be painted over but how do dry films affect paint adhesion?

A: These dry films are designed to be used at lower concentrations. That's a good thing when it comes to paint adhesion. Typically, you'll see these dry films protecting at 3% to 5% concentration. I have seen no paint adhesion issues up to about 5% in some different aqueous products. Of course, it comes down to your paint adhesion spec and making sure that it can meet that. It's definitely doable in lower concentrations of dry films.