



## Letter from a Fan

**Q** Hello Joe,  
 Thank you for taking the time to write great articles like: “Don’t Blame the Powder” where you talk about the need for proper metal pretreatment. I am building a single-family high-end home nine blocks from the beach in the Venice-area of Los Angeles. The fabricator I have hired recommends the embedded frame and the grating be aluminum and then powder coated a dark bronze for aesthetic reasons for my architectural finish application.

Do you see any inherent issues, if the substrate is prepared properly and the powder coating is applied properly, with the powder coating finish coming off in the years to come? Are there any key questions I can ask the fabricator? The fabricator sends the material to the powder coater for application once the frame and grating is fabricated.

Thank you!

Jeffrey D.  
 Los Angeles, CA

**A** Hi Jeff,  
 Thanks for the kind words and for reading my stuff. Much appreciated. You ask great questions and are very wise to proactively consider these issues before the construction commences and it’s too late for modifications. As you surmise, it is critical to get the coating system right to ensure the performance that you expect. Number one: find a reputable finisher. This will be someone who is certified to apply AAMA 2605 finishes. AAMA 2605 refers to a specification by

the American Architectural Manufacturers Association that requires a finish that provides ten years durability in a south Florida environment. (Qualicoat Class 3 has requirements similar to AAMA 2605 – including 10-year south Florida-type durability) A good coater will have a highly controlled metal pretreatment process ensuring excellent adhesion and corrosion resistance of the coating. They will most probably use a high-quality primer followed by either a liquid or powder coating that has been proven to meet the AAMA 2605 specifications; accept no less and get the warranty in writing.

A few select powder coating manufacturers produce products that meet the 2605 and Qualicoat Class 3 specifications. In all cases they have an intimate relationship with the coaters that use these products. They are all fairly easy to find on the internet.

Kudos for your forethought in making sure that the coatings on your new abode meet the demanding requirements of coastal Southern California. Let me know if you have any further questions.

Best regards,

– Joe Powder

*Jeff’s reply:*

Hello Joe,

Thank you for the answer, I appreciate it! You sound like you really know your stuff! I will definitely make sure the fabricator I am contracting with is using a finisher who will use a coating system meeting AAMA 2605 standards. Is there a reason you did not mention Arkema/Kynar, which meets the AAMA 2605 standard? And one more question: do you think there will be a possible issue with electrolytic corrosion on the angle aluminum with 4-inch headed studs to embed in concrete? My research tells me aluminum in concrete is bad, but if it is coated well then there won’t be a corrosion problem. Do you have an opinion about that?

Thank you.

Jeffrey

Hey Jeff,

Regarding Arkema/Kynar - here’s the scoop:

AAMA 2605 is historically met by liquid paint technology that uses at least 70% Kynar® 500 fluoropolymer resin from Arkema. In powder coatings we use either a Kynar® based solid resin, or more commonly, a Lumiflon® fluoropolymer from AGC Chemicals - America. The Lumiflon® technology is a thermoset cured with a urethane crosslinker, whereas the

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Kynar® technology is a thermoplastic. Thermoplastics are more common in the liquid paint world; however we powder coating peeps typically formulate with thermosets as they are easier to process with our extruders.

The answer to your second question: I agree that aluminum in concrete is a rather unwise juxtaposition of materials. I think your installer should drill (or cut) oversized holes in the concrete and fill around the aluminum with a high-quality polyurethane. This will anchor the aluminum but also isolate it from the concrete and protect it from undue corrosion.

- Joe Powder

## 'Tis the Season

Q

Hi Joe,

Hope you are doing well! We manufacture powder coating paints in India, and I face a problem with craters/fish eyes every change in season. What could be the reason for this?



Specifically, I have encountered this twice during September 2019 and in March 2020. In India, the September 2019 problem got resolved with change in weather, when moisture ended after the rainy season and winter was approaching. The recent March 2020 problem ended with the close of winter season, with summer approaching.

We encountered this twice recently, but never before and it has halted our production in a vast

manner. Also, I am surrounded with almost 15 other manufacturers in a five-kilometer radius and no one among them faced such issues. During the problematic period I focused on cleaning machines, trying various raw materials, interchanging them, adding/deleting ratios. Whenever this problem ends, my normal formulations work in good manner with same raw materials making all my efforts worth zero during the undesired period.

How do I tackle this? Thanks in advance for your help.

Best regards,

Samir

Faridabad, Haryana

A

Hi Samir,

Thank you for your question. A perplexing problem indeed. It sounds like you have intermittent incidents of craters/fish eyes and these problems seem to coincide with the change of seasons. During these changes the relative humidity in the air swings significantly from dry to wet or vice versa. This makes your air compressors work harder.

I would therefore inspect your compressed air system. Check to see if your air dryer (it should be a refrigerated type) is working properly and that the condensate is being drained regularly. The same for your air compressor - make sure that it is not overloaded with water/oil. Ensure that it is drained regularly. Also, check the condition of your air filters and keep them clean.

I hope that this helps.

Best regards,

- Joe Powder

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**Editor's Note:** Letters to and responses from Joe Powder have been edited for space and style.

### Not Your Average Joe...

Each issue, we take the padlock off the PCI® Test-Lab door for a few minutes so our favorite technical editor and "powder guru" Joe Powder can run in the yard. When he's not gnawing on a rawhide bone, he loves to answer readers' questions. Go ahead and send him one at [askjoepowder@yahoo.com](mailto:askjoepowder@yahoo.com)... he doesn't bite. Maybe it'll end up in the next issue!