The Importance of Paint Pretreatment

Regardless of the paint finish you choose for your project, Kynar®, baked enamel, or powder coat, the critical first step in the application process is pre-treatment. Without proper pretreatment, premature failure of the finish system can almost be guaranteed. Paint systems are designed to be applied over clean metal that has been properly pretreated.
The most time-tested pretreatment system for architectural aluminum products is a chrome phosphate conversion coating. Chrome phosphate conversion coatings continue to be recognized by many as the most effective pretreatment for aluminum. As a result, products installed along the seacoast and other harsh industrial environments may not be warranted or the warranty length and coverage may be compromised if a chrome pretreatment is not utilized.

At Linetec every piece of aluminum is pretreated with a chrome phosphate conversion coating, whether we are applying a baked enamel finish that meets AAMA2603 or a 70% Kynar® finish that meets AAMA2605. This assures you of the best quality pretreatment for your material.

Unlike batch pretreatment systems that group your products together and immerse them into a static dip tank, Linetec utilizes a dynamic 5-step power spray process consisting of:

Stage 1	High temperature acid clean, etch, and de-smut
Stage 2	Ambient rinse
Stage 3	Amorphous chrome phosphate conversion coat
Stage 4	Ambient rinse
Stage 5	Final rinse with R.O. (reverse osmosis) water and dry off

More information on Linetec's pretreatment process

When a Kynar® paint finish is used in conjunction with chrome phosphate pretreatment the adhesion, film integrity, and flexibility are excellent. The paint finish will resist chipping, cracking, crazing, and erosion.

The use of chrome phosphate is highly regulated for both hazardous waste disposal and OSHA regulated industrial exposure limits. Linetec has an elaborate treatment process that takes the chrome out of the waste water which meets or exceeds all local, state, and federal requirements. The chrome is disposed of as hazardous waste.

Brian Stratton, Linetec's Safety Manager, states, "The main reason exposure is kept to a minimum is engineering controls. Linetec maintains a 100% capture area in both the pretreatment washer system and its paint line application area. Keeping vapors and mists contained and removed from the worker's breathing zone is critical. As an extra precaution, respirators are required when hand spray painting, sanding, compacting filters, and working inside the washer system."

Linetec prides itself on exemplary compliance with environmental regulations while offering customers the best, more reliable pretreatment system available. You can verify Linetec's or any other company's environmental compliance records by browsing the US Environmental Protection Agency (EPA's ECHO) website, at www.epa.gov/echo.

For more information on Linetec and our finishing options visit www.linetec.com.