



CASE STUDY - High VOC Solvent replacement with AEROGREEN® 4110 & AC10 for Davis Standard, LLC.

Project Profile

Davis Standard: design, develop and manufacture extrusion systems, feed screws, barrels and process controls for the flexible web converting, plastics processing and rubber industries. Davis Standard supply extruders and extrusion systems for blown film, blow molding, cast film, compounding and pelletizing, elastomer, extrusion coating and laminating, fiber, laboratory, pipe, profile and tubing, reclaim, sheet, wire and cable, and wood fiber applications. Davis Standard also manufactures solution coating equipment to service the flexible web converting industry.

Davis-Standard serves customers in the agricultural, flexible packaging and web converting, automotive, building, medical, communications, consumer and industrial product industries

Problem

Davis Standard LLC contracted The Sherwin Williams Paint Company to improve their paint finish on their manufactured equipment, eliminate flaws in their finish and adhere to EPA Air Regulations to reduce their VOC emissions. Aero-Green was brought in to replace the solvents that had been the standard cleaner used at Davis Standard LLC as part of their paint program.

A majority of the cast iron parts are being shipped into the plant from China and rust has become a major issue on these parts requiring long man hours to mechanically grind off all the rust.

Proposed Solution

Replace the solvent in current use with AEROGREEN® 4110 Prep in a wipe-on wipe off application. Address the rust issue by using AEROGREEN® AC10 Rust Remover and Metal Prep in both a wipe on wipe off process and in immersion dip tanks.

Process to Use AEROGREEN® 4110 Paint Prep

AEROGREEN® 4110 was used to clean cold and hot rolled steel, cold rolled sheet goods and flat panels, machine surfaces, aluminum and cast iron gear cases (Red Primer) after removal of rust. We mixed a solution of 3 parts water and 1 part 4110, dipped a clean lint free cloth in the diluted solution. Wrung out the cloth so that it was saturated but not dripping. Wiped a small area at a time and then wiped dry with a second dry, lint free cloth. If contamination was still coming off, we repeated steps 2-3.

Process to Use AEROGREEN® AC10 Rust Remover and Metal Prep

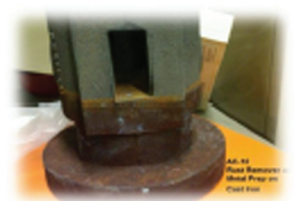
We Removed rust, mill scale and weld spatter by wire brush, orbital sanding or abrasive wheel. We applied AEROGREEN® AC-10 Rust Remover and Metal Prep with either the supplied spray bottle or garden sprayer at a dilution of 42 ounces per gallon of water (recommended for heavy concentrations of rust), Then we soaked the substrate and allowed 1-10 minutes contact time. The rinsed the surface with hot water, before drying the surface immediately by wiping with clean dry rags.

Benefits

Davis Standard implemented Sherwin Williams Primers and Top Coat using AEROGREEN® on all equipment manufactured at the Egan Extrusion Facility in NJ providing customer satisfaction with the finished equipment coating. The success of AEROGREEN® AC10 Rust Remover and Metal Prep proved a major cost saving by eliminating countless hours of manual machining to remove rust from cast iron surface by immersing the parts into the Aero-Green AC10 Rust Remover and Metal Prep and allowing to soak for two hours to remove the rust.

Conclusion

Davis Standard LLC has implemented Aero-Green Products into their manufacturing process replacing all solvent previously used at the Egan Extrusion System Facility with excellent results.



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