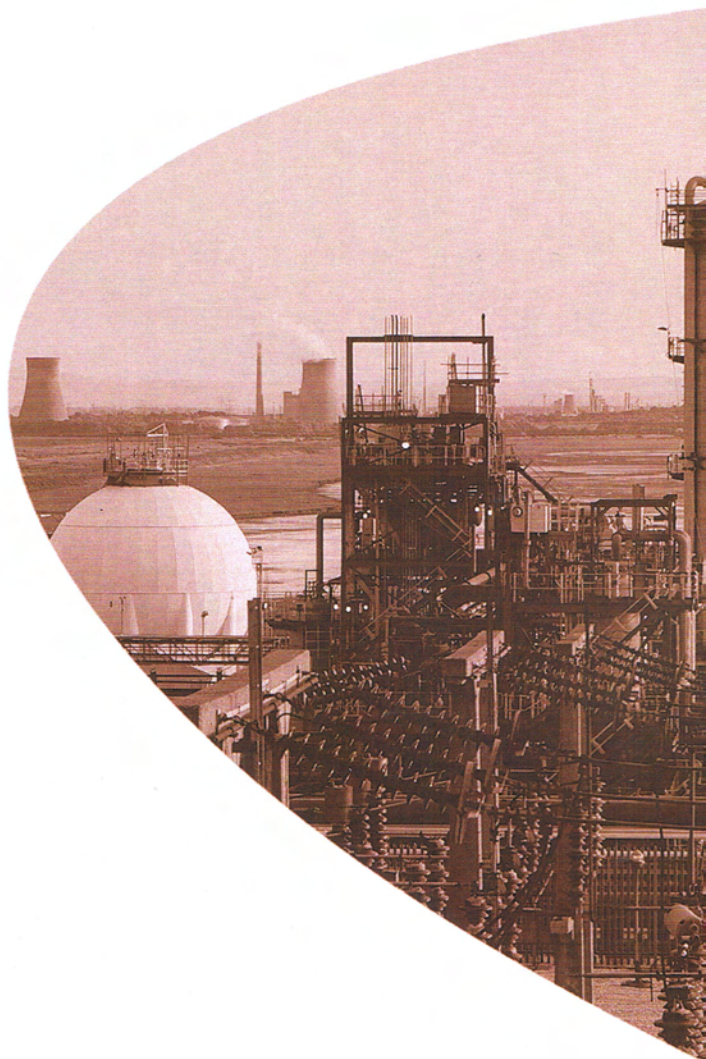


ISSN 0003-5599

Volume 58 Number 5 2011

Anti-Corrosion Methods and Materials



www.emeraldinsight.com



Methods

For coating contractors, labor saved is money earned

For coating contractors, time is money and the labor of applying a coating can be 60-80 percent of a job's cost. While the quality of a coating's protection is key to industrial or commercial jobs, cutting the labor in applying the coating is critical to make any job more profitable – but this has been difficult with traditional coatings. Fortunately, a new type of ceramic coating has promise in reducing labor by increasing the speed of application and flexibility of application times.

The essential problem with traditional coatings is that they usually require a prime coat and two topcoats with about eight hours drying time between each. Since this typically requires multiple days of application, the contractor's crew not only must travel to the job site each day, but also clean and prepare the site to be sprayed, set up spraying equipment, apply the coating, then break down equipment at the day's end. Traditionally, this labor-intensive process must be repeated for each coating even though the contractor is only paid for the end result.

Not only must contractors fit the work into busy industrial or commercial production schedules, but also additional and unprofitable delays can occur when the contractor's crew has already traveled to the job site and set up, when environmental conditions such as temperature, humidity, or moisture are outside the manufacturer's specifications for application.

With a few simple tips, however, coating contractors can dramatically save their labor and make more money without sacrificing the protective quality or longevity of the coating.

Reduce prep and application time

To prepare metal surfaces, many traditional coatings require sandblasting for the initial prime coat, followed by power washing with a detergent in contaminant-heavy industrial environments to clean and prepare the surface for each additional topcoat.

In contrast to typical paint polymer coatings which sit on top of the substrate and require a primer, however, it is more labor efficient to choose from a new category of ceramic coating such as EonCoat, for instance,

which bonds through a chemical reaction with the substrate and provides a complete protective coating in a single coat rather than requiring multiple coats.

Unlike most coatings, this type of protective ceramic coating does not require labor intense surface prep. If the substrate is steel, a brush blast can knock off the loose rust so there is no need to sandblast until there is a bright metal surface for the coating to adhere. Since slight oxidation on the surface allows for the best chemical reaction, this makes it virtually impossible for corrosion promoters like oxygen and humidity to get behind the coating the way they can with ordinary paints. This eliminates the need for a prime coat on most substrates, as well as the need for multiple topcoats on all substrates.

"Doing a brush blast with the EonCoat ceramic coating instead of typical sandblasting to prepare the surface can save time, labor, diesel fuel and sand", says Joey Taylor, President of IPI Inc., an Elkview W. Va.-based industrial paint contractor that works in several states. "Eliminating the need for a prime coat and multiple top coats can offer even greater time and labor savings".

For contractors looking to get the job done faster without compromising on quality, new choices like the ceramic coating are a welcome alternative to traditional coatings such as epoxies or urethanes, which require multiple coats. Because the ceramic coating's surface is dry to the touch within three minutes of exiting the spray nozzle, high build coatings to a thickness of 1/4 inch are possible without run or sag in a single coat. This can often return essential industrial equipment to service in an hour.

"We'd previously switched from epoxies to polyurea for the faster drying times, but the ceramic coating's ability to do even high builds in a single coat make it exceptional", says Taylor. "A complex job that previously took our four-man crew about 9 to 10 hours

spraying with polyurea took about 3 hours spraying with EonCoat. In one day, we saved hundreds of dollars in labor alone".

Reduce downtime and work when others can not

One of the most frustrating situations for a coating contractor is to have traveled to a jobsite, prepped the equipment, and cleaned the substrate – only to be stopped dead due to weather or environmental conditions. With traditional coatings, this is too often the case.

"Most coating manufacturers require a 5°F spread in the dew point, as stated in their product data sheets, to prevent microscopic moisture build up on the substrate, which can cause premature failure", says Taylor. "Because of this, your work crew can be at the jobsite ready to coat, when environmental conditions force them to stop. This alone can cost you thousands of dollars per week".

Another plus for contractors is how the protective ceramic coating can be applied on hot or cold surfaces from 35°F to 200°F in all moisture conditions except for direct rain, which, unlike paint, makes it suitable for all weather application.

"Not worrying about environmental conditions like dew point, weather, or temperature is reason enough to look into a ceramic coating like EonCoat", says Taylor. "To keep your crew productively working when others can't is a valuable competitive edge".

Other contractors also see the environmental versatility of ceramic coatings as an advantage. Ceramic coatings such as EonCoat consist of two, non-hazardous ingredients that do not interact until applied by a plural component spray gun like those commonly used to apply polyurethane foam or polyurea coatings. Since the components are not mixed and do not meet prior to application, the need for hazardous VOC-generating ingredients is

Figure 1



Note: EonCoat's final ceramic coating, which is more comparable to a thin layer of cement can be applied thicker than traditional paint, and bonds chemically to nearly all substrates except plastic

completely eliminated, as is odor which means that the work can get done in occupied areas reducing business hours.

“With the protective ceramic coating, contractors can high build exterior or interior surfaces immediately – even pipes, substrates, or machinery at near-

freezing to near-boiling temperatures – which can expedite tight customer schedules”, says Andy Robbins, CEO of A & K Painting, a Charlotte, N.C.-based industrial and commercial paint contractor that does work in five states. “That means many coating jobs in

occupied areas could get done in a single day or weekend, instead of taking several weekends waiting for multiple coats of primer or paint to dry” (Figure 1).

More information is available from: www.eoncoat.com