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PRESS RELEASE

Take Rust Prevention on Steel Coils to the Next Level

Steel coil processors must consider the potential risk of corrosion to metal as it makes its journey through the different stages of coil processing and ultimately reaches the end user. With the proper protection choices, manufacturers can not only avoid dramatic losses due to corrosion but can also take corrosion protection to a new level of excellence. Cortec® Technology does so at a variety of different corrosion "pain" points in the coil processing industry.

Corrosion Problem Points for Steel Coil Processors

One corrosion risk point is the post-pickling stage, when the coil has been rinsed off after an acid bath. Moisture left behind on the surface can lead to flash corrosion in between the coil layers; oil is typically applied but is not always sufficient for protection. Wet tempering is another time when oils are applied to the metal for the purposes of cooling and corrosion protection. Even steel coil processors who use dry pickling or no pickling at all can

experience corrosion in-process or during transit as the coils pass through extreme climates or unpredictable shipping conditions.

Cost of Corrosion

Without adequate protection, the cost of corrosion can add up substantially over time. A good example is the case of a hypothetical steel mill that produces 10-ton coils at $300 per ton. Operating seven days a week at three shifts per day producing 100 coils per shift, a plant experiencing an economic loss of 1.5% from corrosion would end up with more than $4 million in corrosion losses after one year. With the proper protective materials, this loss could be avoided at a fraction of the cost. Also at stake are the intangible costs of extra time spent remedying the situation, not to mention the damaged supplier-customer relationship.

Improving Rust Prevention on Steel Coils

Cortec® rust preventatives can not only eliminate corrosion losses but can also improve the protection process at a variety of points.

Protection after Acid Cleaning

- VpCI®-329 D can be applied after rinsing and before recoiling. The oily rust preventative displaces moisture and also offers protection in the vapor phase, protecting hard to reach areas between the layers after the steel has been coiled.
- VpCI®-325 is another option that offers the sustainability benefit of replacing some of the standard petroleum-based oil with canola oil, a biobased material. An added advantage is that VpCI®-325 can be used in electrostatic oilers, a type of oiler that can reduce the cost and amount of oil used but only has a narrow range of compatible rust preventatives.
- VpCI®-329 D and VpCI®-325 have both undergone humidity testing against other common steel coil rust preventatives and are well within the range of standard performance. Both rust preventatives have outperformed Quaker Ferrocote 61 MAL HCL 1, a well-known rust preventative in the steel coil industry.

Wet Tempering

- VpCI®-344 is a water-based wet tempering fluid with excellent corrosion protection and can be used in place of traditional mineral oils on cold rolled, galvanized, and aluminized steel.

Edge Spray

- VpCI®-337 can be fogged in between the steel laps as an edge spray even after the steel has been coiled. It offers vapor-phase protection in difficult to reach areas, removing concerns about missing certain areas when applying the product.
- VpCI®-329 D (oily film with vapor-phase protection) and BioCorr® (a USDA Certified Biobased Product that leaves a dry, unnoticeable film) are also good options for edge spray. In addition to good protection, they require minimal to no cleanup before going to the next stage of processing.

Shipping

- VpCI®-126 Film tubing is an excellent finishing touch for coil protection. When used in conjunction with VpCI®-337, it traps the corrosion inhibiting vapors inside the coil package. It also provides external corrosion protection from unpredictable shipping environments.

Choose to Cut Corrosion Costs by Protecting Steel Coils

While the cost of corrosion can be high, the solution can be extremely simple. Cortec® rust preventatives for steel coils are easy to apply within the normal coil processing flow and offer excellent protection all the way into the storage and shipping phases. Potential advantages include the option to go biobased or water-based, cut costs by reducing the amount of oil used, and protect difficult-to-reach areas cleanly and simply. Choose to bring rust prevention for steel coils to the next level of excellence and convenience by discussing your best options with us today!

Keywords: rust prevention, steel coils, corrosion protection, cut corrosion costs, problem points for steel coil processors, cost of corrosion, Cortec, coil processing, water based rust preventatives, biobased rust preventatives

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