

Friday, November 22, 2019

The American Galvanizers Association
6881 South Holly Circle
Centennial, Colorado, 80112

To Whom It May Concern:

Members of the American Galvanizers Association (AGA) in the Pacific Northwest region are currently experiencing a surface condition identified as laps in the steel surface (**Figure 1**) which present themselves as sharp, raised spikes after hot-dip galvanizing (**Figure 2 - Right**). These laps tend to be present on hot-formed semi-finished products, including flat bar, round/square stock, angle and channel.

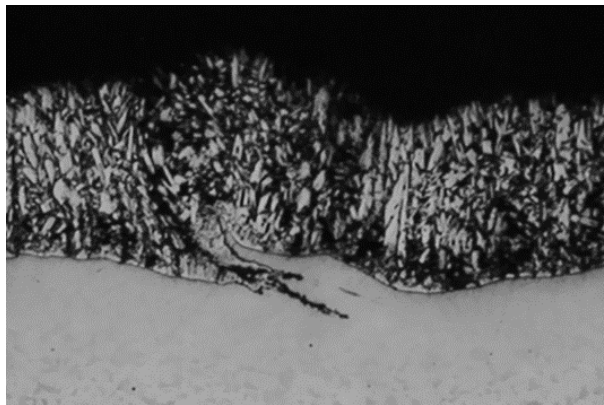


Figure 1: magnified image of lap as seen after hot-dip galvanizing



Figure 2: relatively smooth steel surface containing laps before galvanizing (left) and resulting coating formed after galvanizing (right)

This surface condition is very difficult to identify prior to galvanizing (**Figure 2 - Left**). Even if laps are detected, alternative pre-treatments such as extended pickling times and mechanical cleaning (abrasive blasting, wheel abrading) before galvanizing have not proven a successful solution for remedying the steel surface.



American Galvanizers
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*Protecting Steel for a
Sustainable Future*

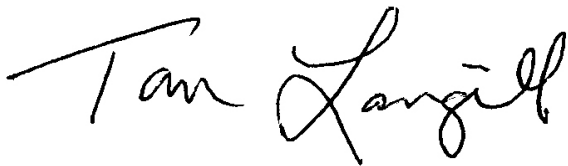
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Because the raised spikes contain steel within, attempts to remedy the spiked appearance after galvanizing are often not feasible without exposure of bare metal. The bare areas experienced after smoothing can be repaired where practical using a galvanizing repair compound, or due to the small surface areas involved the surrounding zinc can provide cathodic protection to these areas with only a minor impact on overall corrosion protection.

As the presence of laps in the steel surface is not within the control of the galvanizer, nor easily detected and remedied by available methods in the batch galvanizing process, the galvanizer cannot be held responsible for smoothing and repairing surfaces with this condition after hot-dip galvanizing.

The AGA and affected galvanizing members are involved in an ongoing investigation to address the issue at the point of steel manufacturing. Meanwhile, the AGA is also investigating additional methods to detect laps and remedy the surface of these products. Until such methods are developed, customers wishing to galvanize hot-formed semi-finished products should investigate the source(s) and manufacturer(s) of products susceptible to this condition, and be mindful of the additional time/cost for remediation and impact to corrosion resistance that may be possible. This is especially true for applications where the affected products will be duplexed or used for railings.

Sincerely,

A handwritten signature in black ink that reads "Tom Langill". The signature is written in a cursive, flowing style.

Dr. Thomas J. Langill
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