



October 2016

RE: Zinc Runoff from Painted Roofs

To Whom It May Concern:

55% Aluminum-Zinc Alloy Coated Steel sheet features an alloy coating on the steel that is approximately 55% aluminum and 45% zinc. Galvanized Steel sheet features an alloy coating on the steel that is approximately 100% zinc. These coatings have been well documented to provide outstanding corrosion resistance.

When these sheet steels are pre-painted, the paint systems applied serve as an additional barrier to the sheet steel. These paint coatings have been well documented in providing outstanding corrosion and weathering resistance, serving to protect the sheet steel from external elements such as rain.

There are currently several investigative entities (government, industry and private) working to identify factors which influence the amount of zinc present in the rainwater runoff from a steel roof. These factors include but may not be limited to: How much acid is present in the rainfall; the intensity of the rainfall (i.e. how many inches/hour it is raining); the duration of the rainfall (i.e. how long does the rainfall last); the total area of the roof; and the temperature of the roof surface. However, predicting the absolute concentration of zinc present in roof runoff for any rainfall situation is nearly impossible, due to the combination of factors above.

Simulated rainfall testing performed by a variety of entities has resulted in the following findings:

Element	Level Detected ($\mu\text{g/L}$ or ppb)
Arsenic, Cadmium, Copper, Lead, Mercury & Nickel	Not Detectable
Zinc	11

In relation to steel roofing products and zinc run-off, the outstanding long-term performance of current paint systems utilized in manufacturing pre-painted steel roofs would show that these systems adhere and perform extremely well in external environments. For years, industry experts have inspected both bare and pre-painted steel roofs located in acid rain areas. The inspection results have shown the majority of roofs to be in excellent condition. This simply would not be the case if the zinc were corroding or dissolving significantly.

If you need more information or have further questions please feel free to contact Cascadia Metals' Marketing Department at 360-232-0209.

Sincerely,
Cascadia Metals