



Galvanized Steel TECHNICAL BULLETIN #5

Sealants for Galvanized Steel

5.0 Introduction.

This bulletin provides background information relating to sealants and their application when used in conjunction with the range of exterior Galvanized Steel products supplied by Cascadia Metals. The sealant industry in the US produces a wide variety of building sealants which together embrace a multitude of end user applications and an even greater range of specific conditions.

5.1 Sealant Selection.

The decision on which sealant is the most effective for Galvanized Steel products in a specific application should be based on several performance characteristics.

Physical Property of Sealant	Performance Characteristic
1. Adhesion	Good adhesion to bare and pre-painted Galvanized steel, without pre-priming except in extreme service conditions.
2. Flexibility	No cracking or loss of adhesion during required bending at specified service temps.
3. Weatherability	No cracking, chalking, bleeding or loss of rubber characteristics after exposure to the damaging effects of ultra-violet rays (sunlight) and humidity.
4. Water Resistance	Adhesion to metal surface will not deteriorate after immersion in water.
5. Chemical Resistance	Good resistance to water, ozone, water vapor, and other chemicals that may be exposed to the sealant in service.
6. Non Corrosive	Will not deteriorate, darken, etch or salt deposit bare or pre-painted Galvanized steel.
7. Staining	No contact or migratory staining of the bare or pre-painted Galvanized steel surface.
8. Non Sagging	Will retain original shape within the joint at specified service temperatures w/o sagging.
9. Printability	Over paintable if required.

Cascadia Metals considers neutral cure silicone rubber sealants will typically meet the performance characteristics outlined above for most applications. Other generic types of sealant such as polyurethane and butyl elastomers are readily available in tape, hot melt and cartridge forms. Once again the performance of these systems should be evaluated with your sealant supplier based on service condition and performance characteristics. The use of sealants means fastening, whether by integral forming or by individual fasteners is necessary where metal to metal joining is involved.

Any technical information or advice contained in this bulletin is provided without charge as a service to the industry. The use of this information or advice may produce unexpected results, and any persons intending to make use of this information are urged to carry out tests of their own to satisfy themselves they are using the correct materials, approach and techniques. Correctly following the information and advice should produce a satisfactory result but Cascadia Metals assumes no responsibility whatsoever in relation to such information or advice. Please ensure you have the most current Technical Bulletin.