

Hot-Dip Galvanized Steel vs. Paint



Newly galvanized



30 years later

Hot-Dip Galvanized Steel	VS.	Paint
No	Special Handling	Paper interleave, cloth slings, wood separators
No	Field Touch-up	Required
Factory	Application	Field or Factory
No	Weather Dependant	Yes
-75°F to 392°F	Temperature Range	< 200°F
Cathodic & Barrier	Corrosion Protection	Barrier
> 3.9 mils (1/4" thick steel)	Coating Thickness	Variable
3600 psi	Bond Strength	300-600 psi
179 to 250 DPN	Hardness/Abrasion Resistance	Varies by Type
75 Years	Service Life - Atmospheric	12-15 Years



Newly painted



4 years later

Initial and Maintenance Cost Analysis*

COATING SYSTEM	YEARS							TOTAL NPV** \$/ft ²
	0	5	10	15	20	25	30	
Galvanized Steel	\$1.67							\$1.67
IOZ Primer/ HB Epoxy	\$1.99			\$0.31 Touch-up	\$0.41 Maint. Repair			\$2.71
IOZ Primer/ Waterborne Acrylic	\$1.89			\$0.33 Touch-up	\$0.46 Maint. Repair			\$3.24
IOZ Primer/ HB Epoxy/ Acrylic Urethane	\$2.62				\$0.34 Touch-up	\$0.43 Maint. Repair		\$3.39
Latex/Latex/Latex	\$1.95		\$0.47 Touch-up	\$0.74 Maint. Repair	\$1.07 Full Repair	\$0.19 Touch-up	\$0.20 Maint. Repair	\$4.71

*It should be known that this table represents a practical maintenance cycle in a moderate industrial environment. It also represents a 250-ton project of typical size/shape, and a 30-year planned service life. The paint costs are based on a conventional spray, SP6 surface preparation in an eastern U.S. exposure. Source: NACE 98 Paper #509, Costing Considerations For Maintenance and New Construction Coating Work.

** Net Present Value