

GALVANISED/STAINLESS STEEL COMPARISON CHART

Grades	Galvanised Steel Z275	Stainless Steel 304	Stainless Steel 316
General Description	Basic steel galvanised with zinc at coating mass of 275g/m ³	Basic alloy with resistance to rust as compared to normal metals	An alloy which contains <u>molybdenum</u> (an alloying additive that increases corrosion resistance)
Metal Composition	<u>Steel Base (w/o zinc coating)</u> Carbon 0.035 – 0.070% Manganese 0.2 – 0.3% Phosphorus 0.00 – 0.02% Sulfur 0.00 – 0.02% Silicon 0.00 – 0.02% Aluminium 0.02 – 0.07% Nitrogen 0.000 – 0.008%	Carbon 0.08% Manganese 2% Phosphorus 0.045% Sulfur 0.03% Silicon 1% Chromium 20% Nickel 10.5%	Carbon 0.08% Manganese 2% Phosphorus 0.045% Sulfur 0.03% Silicon 1% Chromium 18% Nickel 14% Molybdenum 3%
Highly Resistant Against	General exposed environment (onshore)	Rust, sterilizing solutions, organic chemicals.	Sodium and calcium brines, hypochlorite solutions.
Weak Resistant Against	Sodium, chloride and calcium brines	Sodium, chloride and calcium brines (but slightly more resistance than galvanised steel Z275)	N/A
Potential locations	General industry, buildings, construction and appliances.	Architecture, commercial and domestic kitchen constructions, sinks, coastal regions.	High saline environments (coastal regions and outdoor areas where de-icing salts are common)
Costs	Low	Mid-range but expensive long-term (i.e. more replacements necessary due to less resistance to corrosion)	Expensive but cheaper long-term (i.e. less replacements necessary due to resistance to corrosion)