

Materials Data Sheet

Mild Steel

Mild Steel (known as carbon steel), is a general term for a range of low carbon steels that have good strength, with good properties for forming and welding.

The amount of carbon found in mild steel varies, but is typically between 0.05% and 0.25%, but not exceeding 0.30%.

Mild Steel offers a cost effective solution to many requirements, where its strength is utilised, but finishes such as powder / plastic coating or hot-dip galvanising are added to increase its life expectancy.

Common mild steel mesh applications include handrail safety infill meshes, trailer ramps and sides, industrial window guards and much more.

Stainless Steel Overview

Steel can be mixed or alloyed with other elements to give it special properties. Plain steel corrodes easily, so where resistance to corrosion is required, stainless steels are often used.

Stainless Steels are corrosion resistant metal alloy containing Iron (Fe), Chromium (Cr) and Nickel (Ni). The Chromium reacts with the oxygen to form a thin invisible layer of chromium oxide. As a result of this, stainless steels can resist attack by a range of acids, oxidation, and other industrial chemicals and temperatures.

Environmental benefits include no leaching compounds that may compromise its composition with elements such as water. Furthermore, stainless steels are almost completely and infinitely recyclable and is also environmentally neutral and inert.

Stainless Steel Grade 304 (SS304)

Stainless Steel type 304, also known as 1.4301 is part of the austenitic family with high chromium and low carbon content, which is what gives it its corrosion resistant properties.

This type of stainless steel is extensively found in food production facilities, non-medical laboratories, and many other hygiene conscious environments.

Typical Chemical Composition										
Element	C	Mn	P	S	Cr	Ni	Si	Mo	Cu	N
Content %	0.15	2.00	0.045	0.030	17.00 - 19.00	8.00 - 10.00	1.00	0.75	0.75	0.10

Stainless Steel Grade 316 (SS316)

Stainless Steel type 316, also known as 1.4401 is typically as SS304 but with the addition of 2% molybdenum (Mo). This gives it increased resistance to general corrosion and pitting/crevice corrosion.

This type of Stainless steel is preferred for applications in extremely corrosive environments, and as such is specified on most medical, pharmaceutical and harsh sulphur bearing water or halogen salts such as chlorides are present.

Typical Chemical Composition									
Element	Mn	P	S	Cr	Ni	Mo	Si	N	
Content %	2.00	0.045	0.030	16.00 - 18.00	10.00 - 14.00	2.00 - 3.00	0.75	0.10	