



## Stainless Steel Sheet:

Stainless steel is notable for their corrosion resistance, Which increases with increasing chromium content. Addition of Molybdenum increase corrosion resistance in reducing acids and against pitting attack in chloride solutions. Thus there are numerous grade of stainless steel with varying chromium and molybdenum contents to suit the environment the alloy must endure. Stainless steels resistance to corrosion and staining, low maintenance, and familiar luster make it an ideal material for many applications where both the strength of steel and corrosion resistance is required.\*

## Stainless Steel SS 304 Grade:

SS 304 stainless steel contains chromium (between 18-20%) and Nickle (Between 8-10.5%) metals as the main no-iron constituents. It is austenitic Stainless steel. It is less electrically and thermally conductive than carbon steel and is essentially non magnetic. It has a higher corrosion resistance than regular steel and is widely used because of the ease in which it is formed in to various shapes. In industry it is commonly known as 18/8 Stainless steel.

Grade	UNS NO.	C	SI	Mn	P	S	Cr	Mo	Ni	Other
304	S30400	0.08	0.75	2.0	0.045	0.030	18.0-20.0		8.0-10.5	N 0.10
304L	S30403	0.030	1.00	2.0	0.045	0.030	18.0-20.0		8.0-10.5	N 0.10
304H	S30409	0.04-0.10	0.75	2.0	0.045	0.030	18.0-20.0		8.0-10.5	N 0.10

## Stainless Steel SS 316 Grade:

SAE 316/316L Grade stainless steel is the second most common austenitic stainless steel after 304. Its primary alloying constituents after iron, are chromium (between 16-18%), Nickel (Between 10%-14%) and molybdenum (between 2-3%). The additional of molybdenum provides greater corrosion resistance than 304/304L in moderately corrosive environments and chloride pitting resistance, With respect to localized corrosive attack by chlorides and to general corrosion by reducing acids, such as sulphuric acid. It provides Higher Creeps, stress-to -rupture and tensile strength at elevated temperature. The alloy has excellent resistance to inter granular corrosion in the as welded condition.



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Grade	UNS NO.	C	SI	Mn	P	S	Cr	Mo	Ni	Other
316	S31600	0.08	0.75	2.0	0.045	0.030	16.0-18.0	2.0-3.0	10.0-14.0	N 0.10
316L	S31603	0.030	0.075	2.0	0.045	0.030	16.0-18.0	2.0-3.0	10.0-14.0	N 0.10

## Advantages :

- When fire is concern, the jacket material will often be stainless steel
- Stainless steel has higher melting point and will remain in place much longer than aluminum in case of Fire.
- Along with durability it provides better aesthetic look as a finished surface
- It is used in chemical plants to protect underlying insulation, pipes and equipments from the corrosive fumes and leaking chemical.