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## Material Specification Sheet

### Stainless Steel

#### Description

304 stainless steel is a commercial grade of stainless steel sheet metal and the most widely used stainless steel. 304 stainless steel sheets and plates are ideal for applications where sanitation is critical or where there is a constant risk for corrosion. Stainless steel is anti-rusting, and does not need protection from moisture in its immediate vicinity. It does not need painting or finishing and does not easily discolor or stain over time. It is easy to clean and does not tend to pick up odors. It is non-magnetic and will not collect magnetized dust and fillings. It is cost-effective and easily workable with the right equipment. Depending on the thickness of the sheet or plate, it can be cut, drilled, machined and welded without issue.

Stainless Steel can stain slightly over time, in particular (extreme) conditions. These include low-oxygen environments, and those in which there is a high level of salinity. Regular cleaning and maintenance can help prevent any slight staining.

#### Finishes

Conklin Metal stocks two finishes: 2B and #4.

**2B** is a mill finish that is a dull grey and semi-smooth to the touch. With the right tools and techniques it can be shaped and formed easily.

**#4** is a brushed finish that is smoother than the 2B, and it is commonly seen on kitchen appliances. Like 2B, it offers resistance to corrosion and is readily workable with the right equipment.

#### Composition and Properties

304 Stainless Steel is composed of iron that has been alloyed with a number of different materials. Chromium makes up approximately 18% and Nickel (up to 8%). In addition, 304 Stainless Steel contains Manganese (2%) and Silicon (1%), as well as traces of Carbon, Sulphur and Phosphorus, and sometimes Molybdenum. The Chromium content of the steel forms a light oxide film on the surface which prevents further oxidation in all but the harshest environments.

#### Maintenance

You should clean it regularly to remove any chemicals or dirt using a soft cloth and warm water. Stains can usually be removed with detergent.