



IS 12997: 2012

Low nickel austenitic stainless steel plate, sheet, and strip for utensils and kitchen appliances – Specification

IS 15997:2012 specifies the requirements for **low-nickel austenitic stainless steel sheets and strips** used in **utensils and kitchen appliances**. This type of stainless steel is specially designed to provide corrosion resistance, durability, and safety for household applications while minimizing the use of nickel, which can be a concern for individuals with nickel allergies.

Kitchen utensils and appliances to be made from materials that are **safe, durable, resistant to rust, and easy to clean**. Additionally, they seek products that **do not react with food**, maintaining its taste and safety during cooking and storage. Another important factor is **heat resistance**, ensuring that the utensils can withstand high temperatures without deforming or degrading. For those sensitive to nickel, it is crucial to have kitchen products with **reduced nickel content** to avoid potential allergic reactions.

Quality measures specified in standard-

IS 15997:2012 addresses consumer expectations by setting **strict guidelines for chemical composition and mechanical properties** of low-nickel stainless steel. It limits the nickel content to a **lower range** compared to conventional stainless steel, reducing the risk of allergies. The standard ensures that the material has high **corrosion resistance**, making it ideal for kitchen environments where exposure to water, acids, and salts is common.

Additionally, the standard outlines **tests for tensile strength, elongation, and hardness**, ensuring that products are durable and can withstand everyday use. The specified surface finish ensures that the steel is **smooth, non-reactive, and easy to clean**. By adhering to these specifications, manufacturers can produce utensils and kitchen appliances that are both **safe for food contact** and have a long service life, aligning with consumer expectations of high-quality kitchen products.