

IS 8952: Steel ingots, blooms and billets for production of mild steel wire rods for general engineering purposes

Steel ingots, blooms, and billets are key **intermediate** products in the steel manufacturing process, particularly essential for producing **mild steel wire rods**. In the production of mild steel wire rods, which are known for their **low carbon content**, the **billets** are reheated and passed through multiple **rolling** stages to achieve the desired diameter. These wire rods are widely used in general engineering applications due to their excellent **workability, tensile strength**, and versatility.

Consumers expect high-quality raw materials that adhere to precise **chemical compositions** and **mechanical properties**. Key requirements include controlled levels of **carbon, manganese, sulfur, and phosphorus** to ensure **strength** and **durability**. Additionally, **freedom from defects** like cracks, blow-holes, and harmful segregations is essential for the product's integrity.

The Indian Standard, IS 8952 addresses these expectations by specifying **chemical composition limits** for different grades and requiring **product analysis** to confirm quality. It includes provisions for **microalloying elements** (e.g., niobium, vanadium and titanium) to enhance **strength, weldability, formability and toughness**. The standard mandates **sampling and testing** procedures, such as **macroexamination** and **sulfur print tests**, to detect internal flaws, ensuring material reliability. Strict **dimensional tolerances** and **marking requirements** facilitate product consistency and traceability. By providing guidelines for **surface defect removal** and **rust prevention**, the standard ensures that **steel ingots, blooms, and billets** meet consumer expectations for **durability** and **quality** in diverse engineering applications.