



IS 2831: 2012 Carbon steel cast billet ingots, billets, blooms and slabs for re-rolling into structural steel (ordinary quality) – Specification

Carbon steel cast billets, ingots, blooms, and slabs for re-rolling into structural steel form the foundation for producing structural steel and other structures used in buildings, bridges, and other infrastructure development. It is essential to ensure that the billets and slabs meet the required chemical and mechanical properties, surface quality, and dimensions to guarantee the final product's durability, strength, and performance in construction projects.

IS 2831:2012 outlines permissible limits for impurities such as sulphur and phosphorus, which can affect the steel's performance and reduce its strength. It also ensures that the material is suitable for the manufacturing of rolled steel products like beams, channels, and angles, which are commonly used in construction.

IS 2831:2012 include key quality parameters such as:

- **Chemical Composition:** The steel must have a composition of carbon, manganese, sulphur, phosphorus, and other elements to ensure that final product achieves the necessary strength and ductility.
- **Surface Quality:** The surface of the steel must be free of defects like cracks, scales, and imperfections that could affect the re-rolling process or the final steel product's integrity.
- **Dimensional Tolerances:** Accurate dimensions are critical for smooth re-rolling operations and for the final structural steel to meet precise specifications for use in construction.

To ensure that consumers receive high-quality, safe, and reliable products, the standard mandates that all steel billets, blooms, and slabs comply with the specifications outlined in IS 2831:2012. The BIS mark on these products guarantees their adherence to the prescribed standards, offering confidence to manufacturers and end-users alike that the material is of sufficient quality for use in structural steel fabrication.

The **Ministry of Steel Quality Control Order** mandates that all billet, bloom and slab under IS 2831 shall be sold, manufactured, or imported in India only with the **BIS Standard Mark**, ensuring high-quality and performance of product.

In summary, IS 2831:2012 provides specifications for the production of carbon steel billets, blooms, and slabs intended for re-rolling into structural steel. By adhering to these standards, manufacturers can produce steel products that are safe, durable, and suitable for demanding construction applications. Always look for the BIS mark when purchasing these products to ensure that they meet the stringent requirements of IS 2831:2012, ensuring reliability and performance in construction.