Indian Standard IS 8052 : 2006- Steel ingots, billets and blooms for the production of springs, rivets and screws for general engineering applications - Specification

The materials specified in the Indian standards, IS 8052 : 2006, ingots, cast billet ingots, billets, and continuous cast blooms are essential for manufacturing critical components like volute, helical, and laminated springs for the railway and automotive industries, wood screws, spring washers, hard-drawn steel wires, machine screws, rivet bars for structural and shipbuilding purposes, and bright bars. Adhering to these material requirements ensures the durability, performance, and reliability of these components in demanding industrial applications. Additionally, these semi-finished products are used for manufacturing of bars and flats.

This Indian Standard was first published in 1976 and revised in 1990, with the latest revision in 2006 to align with current practices in both Indian and international industries for structural steel.

Any commercial steel-making process is acceptable, with a recommendation for secondary refining to ensure quality. However, certain chemical composition criteria must be met. Elements not specified in this standard must not be intentionally added without purchaser agreement.

The important tests outlined in IS 8052 : 2006 includes (i) Freedom from Defects (ii) Macro examination (iii) chemical requirements (iv) Sulphur print (v) Hardenability (vi) Inclusion Content & (vii) Dimensional requirements.

Materials are marked with essential identifiers, such as cast number and grade, following color codes per IS 2049. A BIS certification mark can be applied, adhering to BIS rules and regulations.

This standard, IS 8052:2006, establishes comprehensive guidelines for ensuring quality and consistency in steel ingots and billets for critical engineering applications.