

IS 1875 : 1992 Carbon steel billets, blooms, slabs and bars for forgings — Specification

This standard covers the requirements for nine classes of carbon steel billets, blooms, slabs, and bars used in forgings. The standard specifies the chemical composition, manufacturing processes, freedom from defects, dimensional tolerances, mechanical tests, sampling procedures, retests, and supplementary requirements. The standard mandates sufficient discard from ingots to ensure freedom from defects. Specific guidelines for conditioning the material, such as permissible depth and width of conditioning, are also outlined.

The standard further outlines permissible deviations in check analysis from the specified composition. Mechanical tests, including tensile and hardness tests, are prescribed, and Table 2 lists the required tensile properties and hardness values. Sampling procedures for chemical analysis and mechanical tests are defined. Retest procedures are outlined for both chemical analysis and mechanical properties. Supplementary requirements like bend tests, grain size, macrostructure, ultrasonic tests, magnetic particle tests, and blue fracture tests may be specified by the purchaser. The standard is under mandatory certification.