

## **Indian Standard IS 734:1975- Specification for wrought aluminium and aluminium alloy forging stock and forgings (For General Engineering Purposes)**

The product wrought aluminum and aluminum alloy forging stock and forgings, intended for general engineering purposes. Forging refers to shaping metal by hammering or pressing it, typically while hot. Forging stock is the raw material used to create forgings, and it can be cast, extruded, or rolled. Forgings are created by hammering or pressing this stock material.

Consumers of wrought aluminum and aluminum alloy forging stock and forgings expect a product that is free from defects and possesses the necessary mechanical properties for their applications. Specifically, they desire forging stock without pipe, undue segregation, or surface imperfections like laps, seams, and sub-surface unsoundness. Similarly, forgings are expected to be sound, free of harmful defects, and capable of being machined to the required dimensions without revealing traces of the forged surface. The chemical composition of the material is also important for ensuring predictable performance and suitability for specific applications.

This Indian Standard addresses these expectations by outlining specific requirements for the chemical composition and mechanical properties of the forging stock and forgings. It provides tables detailing the acceptable ranges for various alloying elements in different aluminum grades, ensuring consistent material quality. The standard also specifies minimum values for properties like proof stress, tensile strength, and elongation, guaranteeing the material's strength and ductility. Additionally, it dictates the procedures for testing and retesting to ensure compliance with these requirements. By adhering to this standard, manufacturers can provide consumers with a reliable and high-quality product that meets their expectations for performance and durability.