



IS 2782:2023 – Refined Nickel

Refined nickel is a versatile metal known for its excellent corrosion resistance, high melting point, and ability to withstand extreme environments, making it essential in industries such as electroplating, alloy production, and the manufacturing of stainless steels and nickel-based alloys. Due to its reliability in harsh conditions, refined nickel is widely used in sectors like aerospace, electronics, chemical processing, and energy.

The standard specifies the chemical composition of refined nickel across **six grades, designated as NR9995, NR9990, NR9982, NR9980, NR9960, and NR9900**, based on the minimum nickel content and permissible impurity levels. Quality parameters in IS 2782 include strict controls over elements such as **carbon, sulphur, and phosphorus**, which influence the metal's performance and suitability for various applications. The standard details the **chemical composition, acceptable impurity levels, forms, and physical** characteristics of refined nickel, addressing the needs of various industrial applications. Provisions for testing, sampling, packing, and marking requirements are included to ensure consistent quality and safety. These quality specifications assure consumers of the material's uniformity and reliability, critical for performance in demanding environments.

In sectors like **electroplating, alloy manufacturing, and chemical processing**, **IS 2782** offers a comprehensive guide to selecting the appropriate grade of refined nickel based on specific application needs. By defining standardized procedures for material analysis and reporting, **IS 2782** helps manufacturers and end-users maintain uniformity in nickel products, facilitating both domestic and international trade. Industries relying on high-purity nickel can trust that materials meeting this standard will perform consistently, reducing risks associated with material variability. This makes **IS 2782** valuable for quality assurance, aiding consumers in selecting nickel grades that meet exacting performance criteria while supporting sustainable production and trade practices.

The revision aligns **IS 2782** with international standards, making Indian-produced refined nickel compatible with global markets. The standard includes **internationally traded grades** of nickel, such as **NR9980 and NR9982**, facilitating smoother trade and enhancing the competitiveness of Indian nickel in global exchanges. This alignment with international norms encourages quality consistency across borders, supporting India's participation in global trade and expanding the reach of Indian nickel products in international markets.