

IS 553:1984 Specification for Rosin Gum (Gum Rosin)

Rosin gum, also known as colophony, is a natural, organic substance known for its tackiness and adhesive properties. It is primarily derived from the resin of pine trees, specifically from the *Pinus* species. The gum is extracted as a solid form of resin by distilling the turpentine oil from the raw pine sap.

Rosin gum is widely used across various industries due to its adhesive and binding qualities. Key applications include:

- **Adhesives and Sealants:** Used in pressure-sensitive adhesives, hot-melt adhesives, and as a binding agent in construction and packaging.
- **Printing Inks:** Rosin gum enhances the tack and viscosity of printing inks, making it a key component in inks for letterpress, offset, and flexographic printing.
- **Rubber Compounding:** In the rubber industry, rosin gum acts as a softening agent and tackifier, improving flexibility and durability in products such as tires and rubber seals.
- **Paper Sizing:** Used to improve the water resistance of paper, allowing for better printing and writing properties.
- **Cosmetics and Pharmaceuticals:** Used as an ingredient in certain ointments, balms, and cosmetics due to its adhesive properties and natural origin.

In recognition of rosin gum's industrial significance, BIS first published an Indian Standard for rosin gum i.e IS 553 in 1955 and subsequently revised in 1969 and 1985 for align with international best practices for gradation, sampling and testing. The standard addresses the physical (e.g. extra pale, pale, medium and dark types) and chemical properties, quality benchmarks, and testing methods for rosin to ensure its suitability for industrial applications.

The standard specifies requirements for rosin's color, softening point, acid value, ash content, and permissible impurities. The testing methods outlined ensure the rosin gum's consistency, purity, and performance are suited to industrial and commercial applications.

By setting these quality parameters, IS 553:1984 ensures that rosin gum meets essential quality benchmarks, making it a reliable and effective raw material across various sectors.