



Indian Standard IS 15623:2005 – Melamine (2, 4, 6 Triamino 1, 3, 5 Triazine)

Melamine (2, 4,6 Triamino 1, 3, 5 Triazine) is a base **chemical**, available in fine powder form and used to prepare **melamine formaldehyde** resin of different M: F ratio depending upon the application of resin. The melamine formaldehyde resin so produced is further modified that is either **methoxylated** or **butylated** to get different variety of resin to suit its application.

Melamine formaldehyde is widely used in the manufacturing of **paint, adhesive, lacquer, textile treatment chemical, and super-plasticizer** as construction chemicals in **cement industries**. Recent development shows that melamine and its derivatives like melamine polyphosphate, melamine-cyanurate with additives find applications as flame retardant for plastics and polymers and also as fire extinguishing dry chemical powder due to its high heat capacity and decomposition at very high temperature. Conversion of melamine formaldehyde resin into moulding powder, and use of melamine formaldehyde resin in decorative laminate, plywood sheet, medium density particle board, high density particle board and veneer board is well known.

Consumers using melamine products typically expect the product to be **Heat Resistant, Durable, Non Toxic and Eco Friendly**. The **Indian Standard IS 15623** developed by **Bureau of Indian Standards (BIS)** addresses these by defining the **chemical purity, formulation, physical properties, and safety criteria** for melamine use in various applications. Key specifications include a minimum of **99.8% purity**. Ash content has been limited to maximum of 0.01% resulting in better thermal stability.

Packaging clause mentions requirements for packing in **paper bag** or **containers** to preserve **quality** and prevent contamination, with mandatory labelling indicating product name, manufacturer, date of manufacture etc. **Testing** and **sampling** procedures are detailed for consistency and compliance, ensuring that products meet the requirements of the standard.