

## Summary of

IS 412: 1975

### Specification for Expanded Metal Steel Sheets for General Purposes

**Introduction about the product:** Expanded Steel is a type of metal sheet or plate that is created by slitting and stretching a solid metal material, typically steel, aluminum, or stainless steel. This process results in a mesh with a unique pattern of diamond-shaped openings, providing a lightweight yet strong material with increased surface area and flexibility. Expanded steel retains the durability and strength of the original metal while being more cost-effective and versatile due to its open structure.

#### Applications:

1. **Industrial Flooring:** Expanded steel is commonly used for walkways, platforms, and mezzanines in factories and warehouses, offering strength and slip resistance.
2. **Security Fencing:** It is used in fences, gates, and barriers for both security and aesthetic purposes, providing visibility while maintaining protection.
3. **Architectural Features:** It serves as decorative screens, facades, and panels in modern architecture, combining functionality and design.
4. **Automotive:** In the automotive industry, expanded steel is used for grilles, underbody shields, and structural components, offering lightweight durability.
5. **Filtration and Ventilation:** Its mesh pattern makes it ideal for filtration systems, vents, and strainers, allowing airflow or liquid passage while maintaining strength.
6. **Storage and Racking:** Expanded steel is used in shelving, racks, and storage systems for its ability to bear weight while reducing overall material cost.

The combination of strength, durability, and versatility makes expanded steel useful in numerous industries, from construction to automotive and design. And the mesh when installed in open air, it is required to be corrosion resistant.

The main parameters of this product are the strength and dimensions of the mesh. This standard prescribes the requirements of this product for the composition, dimensional and mechanical properties. This standard also mentions the requirement for a protective coating of the product which makes the product corrosion resistant.