

IS 274(Part1&2): 1981

Part1: General Purpose Shovels

Part2: Heat Resisting Shovels

General Purpose Shovels and **Heat Resisting Shovels** are hand tools primarily used for digging, lifting, and transferring materials in construction, agriculture, and industrial applications. **General Purpose Shovels** are used for handling loose materials such as soil, sand, gravel, and snow. **Heat Resisting Shovels** are designed to withstand high temperatures and are used in environments where materials like molten metal or hot slag are handled.

Quality parameters of these tools include **durability, functionality, safety, and comfort**. Durability ensures that the shovel can withstand rough use, particularly in tough conditions. Functionality is critical for efficiency; a shovel that is ergonomically designed and easy to handle can greatly improve productivity. Safety is a concern, especially for heat-resisting shovels, which need to provide protection from high temperatures. Comfort is also an important factor, as the handle must be designed to reduce strain during prolonged use.

General Purpose Shovels (Part 1), IS 274 the standard specifies the material and construction of the blade and handle to ensure strength and resilience. It recommends that the blade be made from high-quality steel, properly tempered for hardness, and the handle be of suitable length, material, and ergonomically shaped for better grip and comfort. This standard includes tests **Shape and Dimension, Mass, Bending** test, **Flexing** test.

Heat Resisting Shovels (Part 2), IS 274 ensures that the shovel is made from **Special heat-resistant materials**, such as alloy steel or other alloys capable of withstanding high temperatures. The design also emphasizes the **handle insulation** to protect the user from burns. This standard includes tests **Shape and Dimension, Mass, Bending** test, **Flexing** test and **Hardness** test.