## Indian Standard IS 4386 : 2022 Putting Shots

The shot put is a track and field event involving "putting" (throwing) a heavy spherical ball the shot—as far as possible. For men, the sport has been a part of the modern Olympics since their revival (1896), and women's competition began in 1948. The key requirements are material, diameter, surface roughness and sizes as per weight category.

To ensure standardisation, BIS has developed IS 4386 which specifies the requirements for putting shots used in athletics competitions, ensuring they meet safety, quality, and performance standards. The standard has been revised to align with the latest rules of the International Association of Athletics Federations.

Key Features defined are design, material, and construction for competition-level putting shots. Various user categories have also been defined: Women U18, Women U20/Senior Women, Boys U18, Boys U20, and Senior Men.

The standard prescribes the material and Construction of shots. Shots are made from solid cast iron, brass, or metals of similar hardness, or metal shells filled with lead. Shots must be spherical, with immovable filling, and the center of gravity not more than 6 mm off-center. Shots must have a smooth surface with no protruding edges and a roughness height of less than  $1.6 \mu m$  (N7 or less).

Different categories require specific weights and diameters, e.g., Senior Men: weight 7.26 kg, diameter 110-130 mm; Women U18: weight 3.00 kg, diameter 85-100 mm.

Shots are tested to ensure the center of gravity aligns with the required standards, using a horizontal sharp-edged circular orifice apparatus. Each shot or package must be marked with the manufacturer's name, weight, type, and trademark.

In short, IS 4386 ensures that putting shots used in track and field events adhere to strict quality and safety standards, providing athletes with reliable equipment that meets international competition requirements. Always look for the BIS mark to ensure compliance and authenticity.