

## Shuttlecocks — Specification

A shuttlecock, essential in badminton, consists of a rounded cork base attached to 16 feathers (Natural feathers or synthetic materials), arranged in a cone shape, or a synthetic skirt for durability. This aerodynamic design gives the shuttlecock stability and a unique, controlled flight path, which slows quickly after being hit. National Standards are developed to manufacture high-quality shuttlecocks for ensuring their weight between 4.74 and 5.98 grams, with feather lengths between 62 and 70 mm long aligning with the requirements of Badminton World Federation. This standard helps in maintaining consistency and fairness in gameplay, ensuring reliable flight and balance for competitive matches.

Consumers expect shuttlecocks to have consistency in weight, material quality, and aerodynamic properties for reliable performance. Competitive players look for Grade 1 shuttlecocks, which provide optimized flight, control, and durability suited for high-level play. Recreational players, on the other hand, benefit from Grade 2 shuttlecocks, designed for practice, training, and casual matches. Both grades must meet specifications for flight consistency, durability, and structural integrity, with requirements for cork quality and feather uniformity being especially critical to performance.

The established standards, initially introduced in 1953 and subsequently revised, address these quality expectations through rigorous specifications for weight, dimensions, materials, and construction. These standards allow for the use of both natural and synthetic feathers and define quality parameters for Grade 1 and Grade 2 shuttlecocks. Specifications such as flight testing, pace consistency, and material standards ensure shuttlecocks perform reliably and meet diverse needs across competitive and recreational play, ultimately supporting fair play and durability.