

## **Summary of IS/ISO 6742-2**

Retro-reflective devices are materials or components designed to reflect light back to its source, regardless of the angle at which it hits the surface. In cycling, retro-reflective devices are used on various parts of the bicycle, such as pedals, spokes, tires, and reflectors, to make the bike and rider more visible to drivers. By reflecting headlights directly back to the driver, these devices improve visibility from long distances and various angles, enhancing safety for cyclists on roads.

The Indian Standard (IS/ISO 6742 -2 : 2015) for Cycles — Lighting and Retro-reflective Devices, Part 2: Retro-reflective Devices (First Revision) defines essential safety standards for retro-reflective components on bicycles for public road use. This standard covers photometric, physical, and colorimetric specifications for reflectors, retro-reflective tyres, spokes, and spoke cases, ensuring enhanced visibility and durability under various conditions. The standard mandates tests for temperature resistance, impact, moisture, fuel, and oil resilience to ensure devices withstand diverse environmental factors. Key metrics include the Coefficient of Luminous Intensity (CIL), ensuring adequate brightness, and chromaticity coordinates for accurate color reflection. This comprehensive approach enhances cyclist safety by ensuring reliable visibility and durability on the road.