



IS 16192 (Part 3) : 2018 Automotive Vehicle -Wheel Rim for Two and Three Wheeled Vehicles – Spoke Wheel Rims — Method of Tests and Requirements

A **wheel rim** for a two wheeled or three wheeled vehicle refers to the outer part of the wheel that holds the tire in place. It is a key component in the wheel assembly, and its primary function is to provide structural support for the tire, allowing it to stay securely attached to the wheel. The rim is also responsible for transferring the forces generated by the vehicle's movement to the rest of the wheel and vehicle.

From consumer's perspective, the quality and strength of Material, Durability to withstand the impact from potholes and rough roads without deforming; better fuel efficiency and load capacity are important parameters.

IS 16192 (Part 3) mandates various testing for ensuring the above requirement like **Material and Construction** - High strength, corrosion resistance, suitable for the vehicle's weight and environment, **Dimensions** - Accurate rim diameter, width, and spoke hole specifications, **Strength and Durability** - Load-bearing capacity, impact resistance, and fatigue resistance, Spoke Assembly - Proper spoke number, material, and tension for structural integrity, **Safety and Performance Testing** - Comprehensive strength, fatigue, and impact testing, **Surface Finish** - Corrosion-resistant coatings and smooth surface for durability, **Alignment and Balance** - Ensures the rim is true (round) and properly balanced.

This is enforced by **Ministry of Heavy Industries** through Quality Control Order, which mandates that all wheel rims sold, manufactured or imported in India must comply with IS 16192 (Part 3).

By enforcing these quality and safety requirements, IS 16192 (Part 3) not only enhances consumer confidence but also ensures that the product is safe and reliable, besides delivering high performance to the consumers.