



IS 16014: 2018 Mechanically Woven, Double-Twisted, Hexagonal Wire Mesh Gabions, Revet Mattresses, Rock Fall Netting, and Other Products for Civil Engineering Purposes (First Revision)

This Indian Standard outlines the **specifications for mechanically woven, double-twisted hexagonal wire mesh products**, including **gabions, revet mattresses, sack gabions, soil reinforcement units, and rock fall netting**. These products are primarily used for **civil engineering purposes** such as **erosion control, slope stabilization, riverbank protection, and earth retaining structures**.

The standard specifies that the wire mesh products are manufactured using **galvanized steel wire**, which may also have an **additional polymer coating** for improved durability and resistance to environmental conditions. The products are classified into **Class 1** (zinc or zinc alloy coating) and **Class 2** (polymer-coated in addition to zinc coating), catering to various installation environments and durability needs.

Detailed guidelines are provided for the **material quality, mesh dimensions, and construction**. The mesh must conform to **specific mechanical properties**, including tensile strength and coating adhesion, ensuring it withstands field conditions without deformation. The products are rigorously tested for parameters such as **tensile strength, punch strength, and coating thickness**, complying with **international testing standards**.

The standard emphasizes **proper manufacturing and assembly** processes, ensuring that all components are mechanically connected for structural integrity. Gabions and revet mattresses must be supplied in a **collapsed form** for ease of transport and installation.

Marking and labelling requirements include the manufacturer's name, product type, mesh size, and coating class, ensuring product traceability. Additionally, the use of the **BIS Certification Mark** guarantees that the products conform to the prescribed quality standards.

The standard provides a comprehensive framework to ensure that gabions and related products are **durable, reliable, and safe for use in civil engineering applications**, contributing to **effective erosion control and infrastructure stability**.