IS 12427 : 2001

FASTENERS — THREADED STEEL FASTENERS — HEXAGON HEAD TRANSMISSION TOWER BOLTS — SPECIFICATION

Threaded steel fasteners are crucial components used in various industries for joining and securing parts. They include bolts, screws, nuts, and studs, characterized by their helical ridges or threads that facilitate easy assembly and disassembly.

The standard covers the requirements for **hot-dip galvanized hexagon head** transmission tower bolts in the size range **M12 to M24** for use in the construction of transmission towers, sub-stations and similar steel structures.

Importance:

Threaded steel fasteners play **a vital role** in structural integrity, ensuring components are securely joined to withstand forces and stresses. Proper selection, installation, and maintenance are critical to ensure their effectiveness and longevity.

Hexagon head transmission tower bolts are specialized fasteners used primarily in the construction and maintenance of **transmission towers, wind turbines, and other structures requiring robust fastening solutions**. Ideal for outdoor applications where exposure to weather and mechanical forces is common.

These bolts are designed to provide secure connections in structural applications where strength and reliability are critical. Hexagon-shaped head for easy tightening and loosening using standard wrenches.

IS 12427:2001 specifies the requirements for hot-dip galvanized Hexagon Head Transmission Tower Bolts with thread size range from **M 12 to M 24 with Property Class 5.6, 5.8** and **8.8.**

The standard specifies the dimensions, grades, mating nuts and washers and mechanical properties for the fasteners.

The DPIIT Quality Control Order called as '**Bolts, Nuts and Fasteners (Quality Control) Order, 2024'** mandates that all Bolts, Nuts and Fasteners sold, manufactured, or imported in India comply conform to the corresponding Indian Standard and shall bear the Standard Mark under a licence from the Bureau as per Scheme-1 of Schedule-II to the Bureau of Indian Standards (Conformity Assessment) Regulations, 2018