



IS 4572 - Fibre Ropes — Polyamide — 3-, 4-, 8- and 12- Strand Ropes

Polyamide fiber rope, also known as **nylon rope**, is a strong, elastic, and abrasion-resistant synthetic fiber used to make ropes. It's often used for dynamic climbing ropes, mooring lines, towing lines, and shock lines.

Consumers expect polyamide fiber ropes to offer several quality characteristics, including **high tensile strength**, reliability in wet conditions, **resistance to abrasion**, and dimensional stability. These ropes are also expected to have minimal stretch, excellent resilience to repeated stress, and the ability to **withstand UV exposure** and varying environmental conditions. Another crucial parameter is the rope's performance under **different tension and stress levels**, particularly since these ropes are often subjected to rigorous pulling, lifting, or towing. Durability in varying conditions, including temperature and humidity, and the ability to maintain their **mechanical properties over time** are additional qualities that consumers value in these fiber ropes.

Indian Standard IS 4572: 2022 lays down specific technical requirements for each rope type, including **linear density, minimum breaking force, and dimensional requirements**. It provides requirements for Construction, manufacture, lay, labelling, packaging also. As per the Standard each coil shall have a label, which is firmly fixed in place, giving information regarding **constituent material**, identification of manufacturer and country of origin, reference number, delivered length, reference to the standard.

IS 4572 ensures consistency, and adherence to international standards, thereby providing consumers with reliable, high-performance ropes for demanding applications.