



## **IS 10322 : Part 5 : Sec 9:2017 (Luminaires: Part 5 particular requirements: Sec 9 Rope Lights)**

**Rope lights**, also known as tube lights or **strip lights**, are light fixtures encased in an insulating, translucent pipe or tube, sealed at the ends, with or without joints. The tube or pipe is usually made of PVC, polycarbonate or silicone and the fixture can be rigid or **flexible**. The tube is fitted with non-replaceable series- or parallel- or a combination of series/parallel-connected light sources for use either indoors or outdoors on supply voltages not exceeding 250 V.

Rope lights are widely used for decorative and functional lighting applications, including **accent lighting** in living rooms, as **task lighting** in kitchens, and **outdoor illumination** in gardens or to enhance building facades. Flexible rope lights are also used in retail displays to highlight products, and as **decorative elements for festivities**.

Typically **LEDs** are used as light source in Rope Light for energy efficiency, longevity, and low heat output. These usually operate on **low voltage** (12V or 24V) for safety and flexibility and require a transformer or **LED driver** to convert standard mains voltage to the appropriate low voltage.

This Standard prescribes tests to ensure adequate mechanical strength of Rope Lights and suitability for outdoor use if applicable. It also prescribes electrical safety tests such as **protection against electric shock**, insulation resistance, endurance to cyclic heating and cooling, resistance to heat, fire and tracking etc.

In order to provide an impetus to the growing sector of LED lights manufacturing in the country, the **Ministry of Electronics and IT notified a QCO** and brought IS 10322 (Pt 5/ Sec 9) under **mandatory** compliance of **BIS Certification** since 2020.