

IS 418 Tungsten Filament Lamps for Domestic and Similar General Lighting Purposes

IS 418 covers specifications for tungsten filament lamps, a widely used category of incandescent lamps. These lamps produce light by heating a tungsten filament to a high temperature when electrical current flows through it, resulting in visible light emission. As a product, tungsten filament lamps are known for their instant illumination and pleasing color rendition.

These lamps shall have high-quality parameters such as adequate luminous efficacy (brightness per watt), consistent light output, reliable operating life, safety from electrical and thermal hazards, and robust mechanical construction.

IS 418 addresses these consumer expectations through stringent specifications on materials, dimensions, electrical characteristics, light output, durability tests, and safety requirements. It specifies the test methods to verify lumen maintenance and life. In addition, it also defines testing methods for assessing lamp performance, such as longevity tests, light intensity measurement, and thermal management. Hence, IS 418 ensures reliable performance and safety of lamps in normal use, providing a basis for certification and quality control. The standard aims to facilitate quality control, improve energy efficiency, and ensure consumer safety.