Indian Standard IS 4355: - Specification for Fire-resistant Brattice Cloth

The Indian Standard IS 4355 specifies the requirements for fire-resistant brattice cloth, a protective fabric used in underground mines to control airflow and prevent the spread of fire. This specialized cloth is critical in mining safety, especially in controlling ventilation in hazardous areas prone to gas or dust accumulation.

Consumers of brattice cloth, typically from the mining industry, expect high-quality parameters that include fire resistance, durability, and adequate tensile strength. Fire resistance is paramount as the cloth must withstand exposure to heat and flames without igniting or melting. Durability ensures it can resist wear and tear in a challenging mining environment, while sufficient tensile strength is essential for handling and installing the cloth in various configurations without tearing.

IS 4355 addresses these quality expectations through detailed specifications on material composition, fire resistance, accelerated weathering test, air permeability, electrical resistance and mechanical strength. The standard prescribes tests for fire-retardant properties, ensuring that the cloth can withstand exposure to specific flame intensities. It also outlines standards for tensile strength and tear resistance to confirm that the material remains intact under physical stress. Additionally, IS 4355 includes requirements for electrical resistance, which insures electrical resistance of plastic coated brattice cloth. These standardized requirements ensure that fire-resistant brattice cloth used in mines is safe, reliable, and capable of withstanding the harsh conditions of underground environments.