IS 17070:2019 Jute Agrotextiles for Growth of Plants and Suppression of Weeds-Specification

IS 17070:2019 provides requirements for nonwoven jute agrotextiles (JAT) for growth of plants and suppression of weeds.

JAT is a natural fabric, made of 100 percent jute fibre, that helps retain soil humidity at a conducive level, arrest desiccation of soil and attenuates extremes of temperature due to the intrinsic characteristics of jute and capacity to absorb water/moisture up to about 5 times of its dry weight. On biodegradation, jute coalesces with soil, increasing its permeability and supplementing its nutrient level. JAT fosters growth of vegetation even in arid and semi-arid zones much faster than under control condition without tuse of manures. Additionally, the nonwoven variety of JAT can suppress weed growth effectively without useof chemical weedicides. Nonwoven JAT is a needle punched mechanically compressed fabric in such a manner that light does not pass through the plane of the fabric.

Following types of nonwoven jute agrotextiles, based on g/m^2 , have been covered by this IS:-

a) Type 1 – Having mass of 500 g/m^2(gsm), min
b) Type 2 – Having mass of 800 g/m^2(gsm), min
c) Type 3 – Having mass of 1000 g/m^2(gsm), min

The standard specifies requirements for the following characteristics of nonwoven jute agrotextiles:-

a) Mass at 20 percent moisture regain, g/m^2, min
b) Thickness, mm, min
c) Width, cm
d) Wide width tensile strength, kN/m,[MDxCD], min
e) Tear strength, N, [MDxCD], min
f) Bursting strength, kPa, min
g) Index puncture resistance, N, min
h) Air permeability (at 10m WG) cubic foot/square foot/s, min
i) Water permeability, s^{-1}, min