



Indian Standard IS 15869 : 2020, Open Weave Coir Bhoovastra

Open Weave Coir Bhoovastra (CBV) are permeable coir fabrics made **from coir fibre (coconut fiber)** extracted from coconut husk either by **natural retting** or by **mechanical process**. Open weave CBV are woven fabric of **two treadle weave** in construction made from coir yarn in which the warp and weft strands are positioned at a distance to get a mesh (net) effect of **1", 3/4" and 1/2" square**.

Customer need **sustainable, biodegradable, durable and cost-effective solution** for preventing soil erosion. Open weave CBV have been found to be ideal geo textiles for situations where land is sloppy which may **lead to rilling and gullying**. In such slopes, heavy rainfall causes loss of soil. In the areas of scanty rainfall where soil is non-cohesive and subject to wind blowing, open weave CBV provide protection against erosion like in cut slopes of **railways, roads, approaches of bridges, canal and drainage bank, bank of river, ponds, lakes**, hill slopes and terraces requiring surface stabilization, reclamation of mine spoil heaps and sand dune stabilization.

The open weave CBV are used for **stabilization of soil** through vegetation against erosion of landscape and soil slopes as well as protection of river bank, canal bank, road and railway embankment and reinforcement of mud wall of stream against erosion and other applications involving separation and filtration.

Open weave CBV control the **soil erosion by acting as a ground cover or mulch**. As a ground cover, it reduces the flow velocity of run-off water by forming check dams with the help of net structured strands of open weave CBV in firm contact with the soil, which absorb the impact of water flow and resist washing down keeping the soil intact. Open weave CBV also provides support to the seeds sown and seedling, which could be otherwise easily washed away by water.

The standard prescribes constructional details and other requirements of open weave coir bhoovastra (CBV) of **three different grades - 400 g/m², 700 g/m², and 900 g/m²**, used in prevention of erosion of soil and, reinforcement of paved and unpaved roads. The important quality requirements like mass per unit area, length, width, runnage, dry and wet breaking load, **dry and wet peak load, mesh size, trapezoid tear strength** etc have been specified in the standard . This standard also covers a scheme for labelling environment friendly products known as '**Ecomark scheme**.'

The **Ministry of Textiles**, Govt of India, **Quality Control Order** which mandates that all Open Weave Coir Bhoovastra- sold, manufactured, or imported in India shall comply with **IS 15869** and display the **BIS Standard Mark**, ensuring quality of the product.