



**KANTA FLEX**  
TECHNOLOGY DECADE AHEAD



## **GEOTEXTILES (MORTH SECTION 700 AND CLAUSE 702)**

Geo textile as the name suggests is a kind of textile used for filtration of water by allowing water to pass through and retain all other soil particles. It is widely used for embankments on soft soils, retaining walls, drainage and filtration, erosion control rip rap, sediment control – silt fence, asphalt overlay, etc.

# MATERIAL & CONSTRUCTION

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The geo textile is a fabric having woven as well as non-woven technique, consisting long-chain polymeric filaments or yarns such as polypropylene, polyethylene or polyester or any combination thereof, formed into stable network such that filaments or yarns retain their position to each other through machine made process of heat bonding or needle punching or weaving techniques.

The geo synthetic material of which the drain is made shall be treated with carbon black so that they are protected from the deleterious effects of short-term exposure to ultraviolet rays. It should be resistant to degradation by acid, alkalis, common chemicals, bacteria, fungi and mould occurring in soils and highway constructions.

## PHYSICAL PROPERTIES

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PROPERTY	REQUIREMENTS	TEST METHOD
Sustain load	10 kN/m	BS: 6906 (Part I)
Tensile strength	Above 0.4 kN/m	ASTM D 4632
Elongation	50%	ASTM D 4632
Allowing water to flow under a constant head of water of 100mm	10 liters/ m <sup>2</sup> / sec	ASTM D 4491
Puncture resistance	200 N	ASTM D 4833
Tear resistance	150 N	ASTM D 4533

## INSTALLATION

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Geo textile should not be exposed to the sun light for a period exceeding a cumulative total of 50 hours. The fin drains are laid in trench; the bottom of the trench shall be free of irregularities and shall be brought to the required level. Fin drains should be capable of being jointed longitudinally or laterally into pipe systems for inflow and outflow purposes. Joints parallel to the direction of flow and any exposed edged should be protected from the ingress of soil by a geo textile wrapping with a minimum of overlap of 150 mm.

Non-woven geo textile is also used as paving fabric in civil structures for pavement applications. They come in the form of rolls and care is taken while packing so that there is minimum number of wrinkles while laying. The civil structures especially nearer to river or stream, etc are constructed by laying geo textile, which acts as a major filter in the ground and hence helps for the construction of the structure.