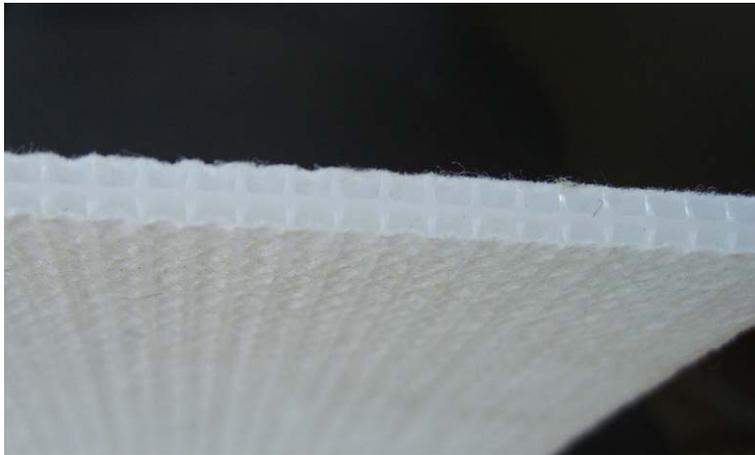




# Dual Core Integrated Wick Drain



Yuan Da is a leader in the manufacture of Prefabricated Vertical Drains (PVD) in China. Yuan Da's dual core wick drains are specially designed to deliver maximum water flow. The extruded polyethylene dual core allows water flow on both sides. Effective filtration is maintained by the high quality non woven filter fabric thermally bonded to the core structure to ensure that the fabric is kept tight across the flow channels over its entire surface.

The integrated dual core structure better withstands installation stresses while offering improved filtration and drainage. Dual Core Integrated Wick Drains maintain a high flow rate even when the PVD is buckled. This can occur due to sedimentation of the upper clay layers.

## **Application:**

Soft clay soils can take a long time to consolidate because of their low permeability and long drainage paths. Prefabricated Vertical Drains shorten the drainage path the water normally follows. This significantly increases the speed of consolidation of very soft soils and the shear strength of the soils prior to construction. Many millions of metres of these drains have been used throughout Asia to prepare a stable subgrades for thousands of hectares of land for industrial and commercial development.

Wick drains are typically installed at 1.5m to 3m centres, with depths at times being in excess of 20m to increase the drainage paths within the soil to be consolidated. The speed of consolidation can be increased by laying heavy concrete or other blocks on the above ground surface.

# Dual Core Integrated Wick Drain

## Typical Values

Physical Properties	Test Method	Type A	Type C
Dual Drain Core	PE/white		
Bonded geotextile filter	PET/white		
Width (mm)	ASTM D3774	98+/-1	98+/-1
Thickness (mm)	ASTM D5199	>4.0	>5.0
Tensile Strength (Dry state) (KN/Core Width)		>=2.0	>=2.8
Drain Flow Discharge Capacity @ 350 kPa (cm <sup>3</sup> /s)	ASTM D4716	>=60	>=80
Drain Flow Discharge Capacity @ 350kPa (buckled) (cm <sup>3</sup> /s)		>=40	>=60
Transverse Discharge Capacity (l/s)	ASTM D5035	>=1x10 <sup>-1</sup>	>=1x10 <sup>-1</sup>
Tear Strength (Lengthways) (N)	ASTM D638	>=70	>=70
Puncture Strength (N)		>=400	>=400
Composite repellence break N/m)		No rupture; No peeling	
<b>Filter Fabric</b>			
Weight (g/m <sup>2</sup> )		>=105-120	>=105-120
Thickness (mm)		0.28-0.32	0.28-0.32
Lengthways tensile strength(dry state) (N/cm)	ASTM D638	>=25	>=30
Transverse tensile strength(wet state) (N/cm)	ASTM D638	>=25	>=25
Filter permittivity (cm/s in water 24hrs)		>=5.0x10 <sup>-3</sup>	>=5.0x10 <sup>-3</sup>
Apparent Opening Size (mm)		<=0.10	<=0.10
Packing - Roll Length (m)		250	250



Yuan Da's Dual Core Integrated Wick Drain has outperformed traditional Prefabricated Vertical Drains made from separate cores and geotextile filter socks on hundreds of projects in recent years.