

## CeTeau Horizontal Composite Strip Drain

The use of CeTeau composite strip drains for lateral drainage on Prefabricated Vertical Drain (PVD) projects can provide a cost-effective, positive, and quantifiable alternative to the use of a sand or granular drainage blanket.

Strip drains are placed under the surcharge to receive the flow from the vertical drains and conduct it laterally to discharge points at the edge of the surcharge. In most cases the installation of these alternatives are less expensive than a granular drainage blanket.

By providing a low resistance drainage path for relief of excess pore water pressures, vertical prefabricated drains (wick drains) drastically shorten consolidation times in soft cohesive soils. Used with a surcharge load, vertical drains

are a cost-effective method for improving these soils. For vertical drains to function properly, a drainage path must be provided to receive flow from the drains and conduct it from under the surcharge to appropriate discharge points. This lateral drainage system must perform without applying excessive back-pressure to the vertical drains, thus delaying the consolidation process. The traditional method of providing lateral drainage has been to install a sand layer, usually about 1 m thick, under the surcharge.

Most of the conventional analyses overestimate the flow capacity of sand drainage blankets resulting in inadequate lateral drainage that, in a number of cases, has compromised the function of the vertical drain system. The use of composite strip drains can provide a very cost-

effective, positive, and quantifiable alternative to the use of a sand or granular drainage blanket. Strip drains are placed under the surcharge to receive the flow from the vertical drains and conduct it laterally to discharge points at the edge of the surcharge. In the majority of cases the installation of these alternatives are significantly less expensive than a granular drainage blanket.

### Other Applications

- Roads
- Embankments
- Slopes
- Sport fields, Golf courses
- Residential Gardens
- Landscaping



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CeTeau is an innovative contracting company active in geosynthetic manufacturing, trading and construction. We can provide design and execute specialized ground improvement, environmental and geosynthetic constructions worldwide.

Thanks to our extensive knowledge, combined with the most modern equipment and expert technology, all activities are carried out with the utmost professionalism. Please visit our website for more information.

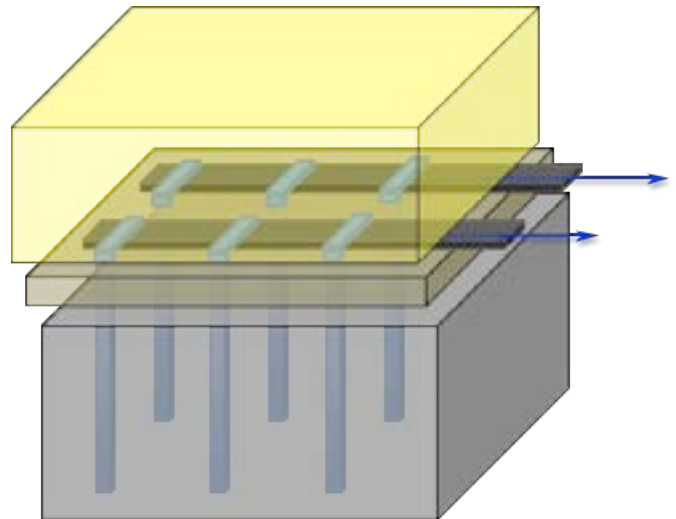
# CeTeau Horizontal Strip Drain

Installation method for CeTeau Horizontal Strip Drain applied as a conduit for water discharged from Prefabricated Vertical Drains during ground improvement.



The horizontal drains shall be placed on the ground in their proper location with respect to the vertical drains, as indicated on the plans. The horizontal drains shall be secured in this location by suitable means (staked, nailed, or held by mounded earth).

The wick drain extensions shall be routed to the horizontal drains as indicated on the plans. The wick drains shall be securely attached to the horizontal drains (staked, nailed or held by mounded earth). Splices or connections in the drainage material shall be done in a workmanlike manner so as to insure continuity of the drain.



Schematic Representation

Properties	Test Method	Unit	CT-S200	CT-S300
<b>Composite Drain</b>				
<b>With</b>	Nominal	mm	200	300
<b>Thickness</b>	ASTM D 5199	mm	10	10
<b>Horizontal Permeability</b>	ASTM D 4491	m/s	0.15	0.15
<b>Discharge Capacity @1%</b>	ASTM D 4716	m <sup>3</sup> /s	2.4*10 <sup>-5</sup>	3.6*10 <sup>-5</sup>
<b>Compressive Strength</b>	ASTM D 1621	KN/m <sup>2</sup>	600	600
<b>Core</b>				
<b>Profile</b>	-	-	Cuspated	Cuspated
<b>Color</b>	-	-	Black	Black
<b>Material</b>	-	-	HDPE	HDPE
<b>Filter</b>				
<b>Material</b>	-	-	PP/PET	PP/PET
<b>UV Stabilized</b>	-	-	yes	yes
<b>Grab Strength</b>	ASTM D 4632	N	>450	>450
<b>Permeability</b>	ASTM D 4491	m/s	1.5 *10 <sup>-4</sup>	1.5 *10 <sup>-4</sup>
<b>Mass per Unit Area</b>	ASTM D 4595	g/m <sup>2</sup>	180	180

All mechanical properties are average values. Standard variations in mechanical strength of 10% and in hydraulic flow and pore size of 20% have to be allowed for. All information, illustrations and specifications are based on the latest product information available at the time of printing. The right is reserved to make changes at any time without notice.