

# Alidrain® Prefabricated Vertical Drains

Alidrain® Prefabricated Vertical Drains comprise of a double sided ribbed polypropylene core wrapped around with a high performance filter jacket. Alidrain® Prefabricated Vertical Drains have excellent flow discharge capacities even in the kinked form. It is installed in soft clays to provide a shorter path for effective excess pore water dissipation, thereby resulting in accelerated consolidation of soft clay layers and gain in shear strength.

| Properties   | Test Standard | Unit                                 | AD 530 <sup>a</sup> |
|--|---------------|--------------------------------------|---------------------|
| <b>Composite</b>                                     |               |                                      |                     |
| Discharge capacity - straight (300 kPa) <sup>b</sup> | ASTM D4716    | $\times 10^6 \text{ m}^3/\text{s-m}$ | 50                  |
| Discharge capacity - kinked (200 kPa) <sup>c</sup>   | ASTM D4716    | $\times 10^6 \text{ m}^3/\text{s-m}$ | 38                  |
| Tensile strength                                     | ASTM D4595    | kN                                   | 1.8                 |
| Tensile strength @ 10% Strain                        | ASTM D4595    | kN                                   | 1.5                 |
| Tensile elongation at 1kN                            | ASTM D4595    | %                                    | ≤ 10                |
| Tensile elongation at break                          | ASTM D4595    | %                                    | ≥ 15                |
| <b>Filter</b>  |               |                                      |                     |
| Tensile strength (MD)                                | ASTM D4595    | kN/m                                 | 6                   |
| Grab strength (MD)                                   | ASTM D4632    | N                                    | 500                 |
| Trapezoidal tear (MD)                                | ASTM D4533    | N                                    | 100                 |
| Puncture resistance                                  | ASTM D4833    | N                                    | 100                 |
| Apparent opening size                                | ASTM D4751    | $\mu\text{m}$                        | 80                  |
| Permittivity   | ASTM D4491    | $\text{s}^{-1}$                      | 0.5                 |
| Coefficient of permeability                          | ASTM D4491    | $\times 10^{-4} \text{ m/s}$         | 1.0                 |
| <b>Physical</b>                                      |               |                                      |                     |
| Nominal width  |               | mm                                   | 100                 |
| Nominal thickness                                    | ASTM D5199    | mm                                   | 3                   |
| Roll length  |               | m                                    | 270                 |

**Note :**

- <sup>a</sup> The values given are indicative and correspond to the average values obtained in accredited testing laboratories and institutes
- <sup>b</sup> Flow measurement taken at  $i = 0.1$ ; in a confining medium of closed-cell neoprene
- <sup>c</sup> Flow measurement taken at  $i = 0.1$ ; in a confining medium of closed-cell neoprene- Kinked geometry according to ASTM D6918 Method A

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