

# AQUADRAIN® G20

## SUBSURFACE DRAINAGE COMPOSITE

### DESCRIPTION

AQUADRAIN G20 is a two-part prefabricated drainage composite consists of a high strength HDPE geonet core with a non-woven polypropylene filter fabric bonded to both sides. AQUADRAIN G20 is designed for horizontal and vertical applications requiring very high compressive strength with low to moderate flow properties.

The HDPE geonet core provides high compressive strength and a moderate water flow. The non-woven fabric allows water, or other liquids to pass into the drainage core while restricting the movement of soil particles. The fabric is bonded to the core to minimize fabric intrusion into the core resulting from backfill pressure.

### APPLICATIONS

AQUADRAIN G20 is designed to replace aggregate drainage between split-slab construction and backfill aggregate drainage against below-grade foundation walls. Applications include earth-covered structures, foundation walls, retaining walls, bridge abutments, tunnels and planters. Additionally, AQUADRAIN G20 can be used for sub-surface drainage in split-slab construction of decks, plazas and balconies.

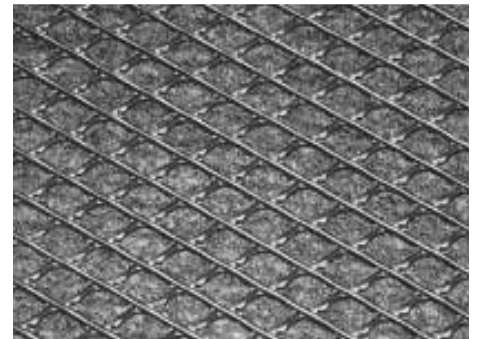
### INSTALLATION

For horizontal installation between split-slab construction, such as under heavy vehicular traffic areas of parking and plaza decks, place AQUADRAIN G20 with either non-woven filter fabric side up. When AQUADRAIN G20 is used with a waterproofing membrane, a protection course material must first be installed over the waterproofing membrane. Butt adjacent rolls; lap filter fabric and use adhesive or tape to bond adjacent fabrics in accordance with manufacturer's installation instructions.

Do not drive motorized vehicles directly on drain board prior to topping material being placed. Keep direct exhaust from compactors away from drain. Other trades should be careful not do damage or disrupt the drainage system as well. Protect drain from sunlight during transportation and storage. AQUADRAIN G20 is resistant to chemicals found in normal soil conditions. Contact CETCO for assistance on projects involving contaminated soils.

### PACKAGING

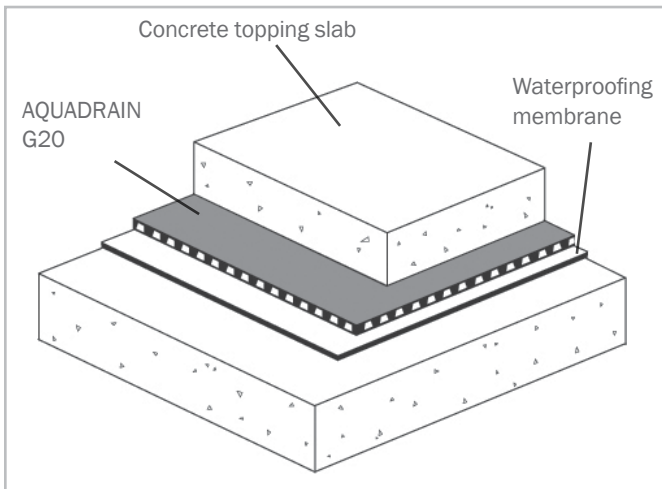
AQUADRAIN G20 is available in standard 4' X 75' (1.22 m X 22.8 m) rolls; 300 sq. ft. (27.8 sq. m.) per roll.



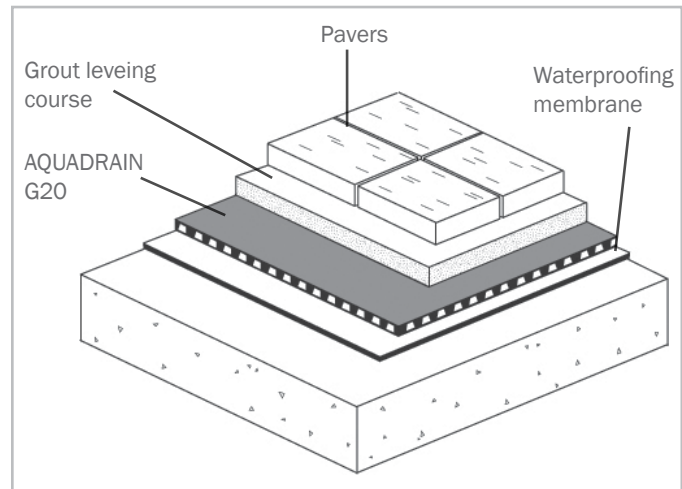
AQUADRAIN G20 Geonet Composite with top side filter fabric removed to show geonet core

## AQUADRAIN® G20 SUBSURFACE DRAINAGE COMPOSITE

TECHNICAL DATA			
PROPERTY	TEST METHOD	TYPICAL VALUE	METRIC VALUE
<b>NONWOVEN FILTER FABRIC PROPERTIES</b>			
Material	N/A	Polypropylene	Polypropylene
Weight	ASTM D3776	4 oz/yd <sup>2</sup>	136 g/m <sup>2</sup>
Grab Tensile Strength	ASTM D4632	100 lbs.	0.45 kN
Puncture Strength	ASTM D3787	65 lbs.	0.29 kN
Trapezoidal Tear	ASTM D4533	40 lbs.	0.17 kN
Burst Strength	ASTM D3786	185 psi	1,270 Kpa
Elongation	ASTM D4632	50%	50%
Apparent Opening Size	ASTM D4751	70-100 U.S. std. sieve	0.15-0.21 mm
Permeability	ASTM D4491	0.20 cm/sec	0.20 cm/sec
Flow Rate	ASTM D4491	150 gpm/ft <sup>2</sup>	6,105 l/min/m <sup>2</sup>
<b>DRAINAGE CORE PROPERTIES</b>			
Material	N/A	HDPE	HDPE
Thickness	ASTM D1777	1/4 (0.25) inch	6.4 mm
Compressive Strength	ASTM D1621 (mod)	40,000 lbs./ft <sup>2</sup>	1,915 kPa
<b>DRAINAGE COMPOSITE PROPERTIES</b>			
Flow Capacity	ASTM D4716	7 gpm/ft. of width	88 l/min/m of width
Roll Length	N/A	75 ft.	22.8 m
Roll Width	N/A	4 ft.	1.22 m
Roll Weight	N/A	66 lbs.	30 kg



SPLIT-SLAB CONSTRUCTION



PLAZA DECK - PAVERS

AQUADRAIN published flow performance and load values are determined by applicable industry testing methods. Specific project performance requirements and product selection should be determined by the project designer. Do not drive vehicles directly on drainage composite prior to concrete or backfill placement. Repair damaged or disrupted drainage system prior to backfill or cover material placement. Product should not be used as a surface material exposed to sunlight. AQUADRAIN is resistant to chemicals found in normal soil conditions. Additional geotextile filter fabric may be required for use around discharge pipes and other detailing.

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UPDATED: JUNE 2015

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