User guide and warranty terms and conditions

Hydroblob blocks placement instructions

Hydroblob is used in developed and undeveloped areas, alongside or under paved areas, around buildings and in gardens. Hydroblob prevents flooding in areas where rainwater is separated from the existing sewage system and in places where either a rainwater or sewage system is not present.

'D' blocks consist of a core of compressed mineral wool encased by a geotextile filter cloth, which also applies to 'BD' blocks. 'BD' blocks, however, also come with a perforated pipe for connecting to rainwater discharge, drains, pipes, drainage hoses, gutters, etc. The blocks should be positioned vertically, note the *'this side up*' sticker. This is recommended in regards to the carrying capacity of the blocks. Should the carrying capacity be of minor importance, the blocks can also be applied horizontally (for drainage purposes).

Permissible load/carrying capacity in accordance with DIN -EN 1433 (class A15/B125/C250/D400) is applicable to vertically arranged blocks, laid according to the positional instructions stated below and according to the construction depth applicable to the block type and cover on top of the block.

Operation and positioning instructions for single placement behind each other:

1. Dig a trench wide enough for the type of blocks with dimensions described in table 1 below and on the labels on of the product. The length of the trench is determined by the number of blocks to be placed behind each other (always a multiple of 120 cm). **Note**: in table 1 as well as the labels on the products are based on construction on and in sandy soil. If this is not the case, be sure to dig an extra 5 cm deeper and 5 cm wider for a 5 cm thick layer of sand. Use masonry or street sand and work this towards the bottom plane.
2. Place the blocks in the trench on the (placed) layer of sand. For BD blocks, connect the block pipes to each other using the connector pieces.
3. Fill the sides of the trench with masonry or street sand and compact the layer until it is at an even height with the top of the blocks.
4. Fill the trench further with masonry or street sand in layers of 15 cm until you reach ground level. Compact the layer of sand further through vibration or watering. Materials or machines used for this process should not exceed 1500 kg/m^2.
5. The blocks are now placed in the trench and the ground is compacted so the desired finish can now be applied (paving, tiling, grass, gravel, etc.). When gravel is chosen as finishing groundcover, use our Easy Gravel Split plates for better pressure distribution and prevent rutting.

Hydroblob "D" Rainwater Drainage, Buffer and infiltration System
Application: Drainage and water buffering around buildings, pavements and gardens.

Table 1 Type	Max. load per kg/m^2	Capacity In litres	Dimensions trench (lxWxH) in cm	Construction depth in cm	Ground cover In cm	Traffic Class
34 / grate	2.500	34 l	120x15x20	20	0	**A15 / B125**
34	2.500	34 l	120x15x35	35 / 45*	15 / 25*	**B125 / C250***
45	2.500	45 l	120x20x40	40 / 50*	20 / 30*	**B125 / C250***
56	2.500	56 l	120x20x45	45 / 55*	20 / 30*	**B125 / C250***
112	2.500	112 l	120x30x63	63 / 73	30 / 40*	**B125 / C250***
170	2.500	170 l	120x30x80	80 / 90	30 / 40*	**B125 / C250***
220	2.500	220 l	120x40x90	90 / 100	40 / 50*	**B125 / C250***
340	2.500	340 l	120x30x130	130 / 140*	30 / 40*	**B125 / C250***
440	2.500	440 l	120x40x140	140 / 150*	40 / 50*	**B125 / C250***
43HD	4.500	43 l	120x20x40	40 / 50*	20 / 30*	**C250 / D400***
216HD	4.500	216 l	120x40x90	90 / 100	40 / 50*	**C250 / D400***

Hydroblob "BD" Rainwater Separation, Buffer and Infiltration System

Application: Separating rainwater in homes, businesses, carports and garages. Separating water from storm drains, linear drainage and pavement drainage points.

Including a Ø 100 perforated tube

Using a Hydroblob sand trap/leaf separator is mandatory in order to keep the blocks and pipes free from debris. Please see our available models.

Operation and positioning instructions for double placement (2 blocks adjacent to each other):

1. Dig a trench wide enough for the type of blocks with dimensions described in the table 2. The length of the trench is determined by the number of blocks to be placed behind each other (always a multiple of 120 cm). The width of the trench should now be at least 2x the width of the blocks used.
   Note: the table below is based on construction on and in sandy soil. If this is not the case, be sure to dig an extra 5 cm deeper and 5 cm wider for a 5 cm thick layer of sand. Use masonry or street sand and work this towards the bottom plane.
2. The operations are identical hereafter, as described in Table 1.

Table 2 Type	**Max. load per kg/m²**	**Capacity In litres**	**Dimensions trench (lxWxH) in cm**	**Construction depth in cm**	**Ground cover In cm**	**Traffic Class**
34	2.500	34 l	120x30x42,5	42,5 / 52,5*	22,5 / 32,5*	**B125 / C250***
45	2.500	45 l	120x40x50	50 / 60*	30 / 40*	**B125 / C250***
56	2.500	56 l	120x40x55	55 / 65*	30 / 40*	**B125 / C250***
112	2.500	112 l	120x60x78	78 / 88*	45 / 55*	**B125 / C250***
170	2.500	170 l	120x60x95	95 / 105*	45 / 55*	**B125 / C250***
220	2.500	220 l	120x80x110	110 / 120*	60 / 70*	**B125 / C250***
340	2.500	340 l	120x60x145	145 / 155*	45 / 55*	**B125 / C250***
440	2.500	440 l	120x80x160	160 / 170*	60 / 70*	**B125 / C250***
43HD	4.500	43 l	120x40x50	50 / 60*	30 / 40*	**C250 / D400***
216HD	4.500	216 l	120x80x110	110 / 120*	60 / 70*	**C250 / D400***

Operation and positioning instructions for triple placement (3 blocks adjacent to each other):

1. Dig a trench wide enough for the type of blocks with dimensions described in the table below. The width of the trench should now be 3x the width of the respective type of blocks.
2. The operations are identical hereafter, as described in Table 1.

Table 3 Type	**Max. load per kg/m²**	**Capacity In litres**	**Dimensions trench (lxWxH) in cm**	**Construction depth in cm**	**Ground cover In cm**	**Traffic Class**
34	2.500	34 l	120x45x50	50 / 60*	30 / 40*	**B125 / C250***
45	2.500	45 l	120x60x60	60 / 70*	40 / 50*	**B125 / C250***
56	2.500	56 l	120x60x65	65 / 75*	40 / 50*	**B125 / C250***
112	2.500	112 l	120x90x93	93 / 103*	60 / 70*	**B125 / C250***
170	2.500	170 l	120x90x110	110 / 120*	60 / 70*	**B125 / C250***
220	2.500	220 l	120x120x130	130 / 120*	80 / 90*	**B125 / C250***
340	2.500	340 l	120x90x160	160 / 170*	60 / 70*	**B125 / C250***
440	2.500	440 l	120x120x180	180 / 190*	80 / 90*	**B125 / C250***
43HD	4.500	43 l	120x60x60	60 / 70*	40 / 50*	**C250 / D400***
216HD	4.500	216 l	120x120x130	130 / 140*	80 / 90*	**C250 / D400***

Operation and positioning instructions for large buffers/infiltration fields wherein several blocks are placed side by side and behind each other (large volume):

1. For larger constructions, the manufacturer (Hydroblob) will provide tailored advice. The operation and functionality of the blocks align with the specific environment and usage.

Hydroblob water absorption capacity in time.
The speed at which Hydroblob absorbs water depends on the manner in which the water can reach the blocks. When water comes into direct contact with the blocks, the speed at which water is absorbed is approximately 400 litres per m^2 per minute. When water reaches the blocks through a porous layer such as sand, it has a retardant effect, which is also then regarded as normative. The water absorption capacity/permeability rate of porous sand is approximately 50 to 60 litres per hour. This means that 50 litres of water on a surface of 1 m^2 takes about an hour to sink through. Uptake of water via the perforated tube in type BD blocks occurs at a rate of 100 litres per linear metre of pipe per minute.

Hydroblob water release in different soil types:
How many Hydroblob® blocks are required per 100 m^2 of paved or roof surface to be separated?

Soil type	Infiltration capacity mm / hour	Required buffer capacity in litres	Number of Hydroblob® blocks			
			D340	D170	D112	D34
Sand	: >30	1500	5	10	15	50
Sandy loam	: 20 – 30	2000	6	12	18	60
Loam	: 10 – 20	2500	8	16	24	80
Boulder clay	: 5 – 10	3000	9	18	27	90
Clay	: 1 – 5	3500	11	22	33	110

Warranty terms and warranty period:

The warranty on Hydroblob products applies for a period of 10 years whereby the manufacturer guarantees performance, shape retention and functionality. Warranty is applicable if these requirements and methods are adhered to:

1. The water absorption, the absorption capacity of the blocks remain between 88% and 94% of the block volume;
2. The water delivery to the soil, if the conditions have remained unchanged;
3. The carrying capacity;
4. The shape retention;
5. The composition of the product.

Hydroblob water management products offer a wide range of possibilities and applications. Is your intended use or application not mentioned in this document? Then please contact Hydroblob to discuss your situation. Are there uncertainties about how to operate, apply or implement Hydroblob blocks? Then please contact us so we can advise you accordingly.

We wish you all the best while using our products.

Sincerely,

Hydrorock International B.V.

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