


HYDRABOND[®] HB-4118

Solid anionic polymer block for water treatment in remote locations

Description

HYDRABOND[®] HB-4118 is a solid block containing anionic polymer used for general purpose water clarification in remote, hard-to-reach or unsupervised locations where polymer make-up or dosing equipment is unavailable. HB-4118 is non-toxic to fish and aquatic life and suitable for waters being discharged to EPA controlled water systems. HB-4118 is characterised as being a high molecular weight linear polymer of medium anionic charge in an inert carrier agent.

Product Benefits

- » No make-up or dosing equipment required
- » Non-toxic allowing the treated waters to be discharged to EPA controlled water systems
- » Disperses slowly allowing high volumes of water to be treated with each block
- » Helps capture both colloidal and larger solids by forming large & dense flocs that promotes high settling rates

Product Use

HYDRABOND HB-4118 is a solid block containing anionic polymer for use as a flocculant in water clarification. It is ideal for applications where there is no electrical or pneumatic power available for polymer make-up or polymer dosing.

HB-4118 can be used for waters discharging to an EPA controlled waterway, or where the water is reused.

Applications include:

- › stormwater drains before settling ponds
- › run-off from construction sites, quarries, stockyards and industrial sites
- › retention dams
- › water from wheel and truck washing

Product Activation

HB-4118 is designed to slowly disperse and activate in the presence of turbulent, flowing water. The flowing water scours polymer from the block where it mixes with the rest of the water stream. The faster the flow, the more the block will be scoured and the faster it will be consumed. When the flow stops, HB-4118 stops being consumed.

Leaving the HB-4118 block in non-flowing water is not ideal. The block will partially dissolve resulting in a gel forming on the block surface. If left for only a couple of hours in non-flowing water, when the flow starts again this gel will disperse and the block will return to its normal operation. If left for longer than about 12 hours in non-flowing water, the gel surrounding the block may become thick enough that the block becomes almost unusable.

Properties

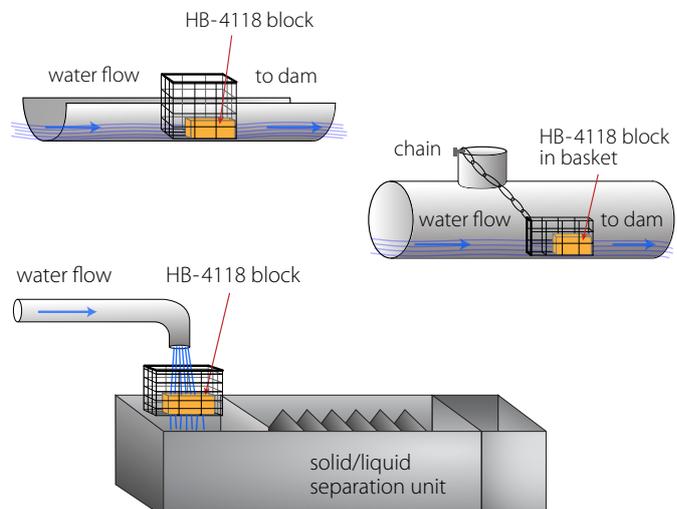
Form:	3 kg solid rectangular block
Dimensions:	220 x 170 x 80 mm
Colour:	Off-white
Bulk density:	1.05 g/cm ³
pH:	6.5 ± 0.5 (0.2% solution)
Viscosity:	700 cP (0.2% solution)

The most suitable mode of operation is to have the block in flowing water, and when the flow stops then allow the block to dry. When the flow starts again and begins scouring the block, the block returns to normal operation with the flowing water scouring polymer from the block.

Product Application

The role of HB-4118 is to flocculate colloidal and suspended solids in the water before solids removal via a dam or clarifier. Thus once dosed, the resultant solids should be allowed to settle before the water is discharged or reused.

To treat an inflow of water to a dam, HB-4118 can be placed in a wire basket in a turbulent location such that the water flow will scour polymer from the block, allow it to mix with the rest of the water, and then enter the dam.



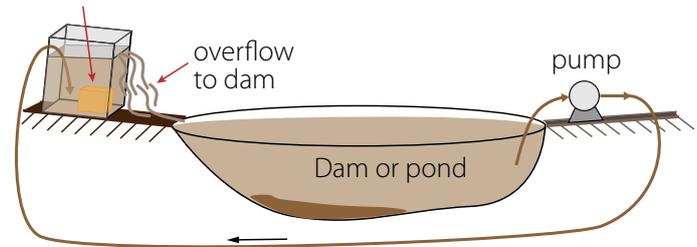
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A small turbulent zone should be created after the HB-4118 block to allow good contact between the polymer and the suspended solids.

To treat a dam that already has cloudy water in it requires pumping the water from one end of the dam, passing the water over the HB-4118 block, and then releasing the water to the other end of the dam. One method used is to pump the water into a tank with a block secured inside and let the water scour polymer from the block and then overflow the tank back to the dam.

HB-4118 block in tank or container



Under typical operating conditions a 3 kg HB-4118 block is expected to treat about 500,000 litres of water. Lower water temperatures and lower flows will reduce consumption, while higher flows and warmer water will increase consumption.

If your water is particularly turbid, or you have a large volumetric flow and you want to increase the dose rate, then add more HB-4118 blocks into the basket or container. Alternatively have a second or third basket with an HB-4118 block inside placed in series or alongside the first basket. Another option is to take one block of HB-4118 and break it into smaller pieces and then place in the basket. This will increase the surface area of the block available to dissolve, with the effect of increasing the dose rate.

HB-4118 will not affect the water pH nor will it add any salinity (total dissolved solids) to the treated water.



Basket dimensions (LxWxH) = 300 x 300 x 400 mm