

Z-BIO OBP100 OIL BIOREMEDIATION PILLOWS

Oil pollution arising from oily water separators can now be avoided by the use of **Z-BIO OBP100**.

Oil Absorbent Pillows are designed to be used in interceptors and drainage culverts. They will preferentially absorb oils and greases and cause accelerated breakdown of absorbed hydrocarbons by bacterial action. Designed for continuous absorption of oil but may be used to absorb excess oil and grease from casual spillages.

Combining a blend of hydrocarbon degrading bacteria and oleophilic fibre, Z-BIO OBP100 degrades the blooms of hydrocarbon based materials commonly found in interceptors and similar oily water catchment systems.



Typical performance analysis :

A five stage oily water separator. One OBP in each chamber for a period of 16 weeks prior to analysis.

ANALYSIS	INFLUENT SAMPLE	EFFLUENT SAMPLE
pH	6.9	7.0
COD	5198	146.8
BOD	+741	55.9
SUSPENDED SOLIDS	992	14
OIL	1334 mg/l	10 mg/l

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TECHNICAL INFORMATION

Bioremediation Pillows are specially treated to give oleophilic (oil attracting) properties with hydrophobic (water repellent) filament yarn. The choice of fibre and the construction has been optimised to give an exceptionally high void volume of 92% for maximum absorption.

Stitch bonding provides high tensile strength, dimensional stability and prevents breakdown when fully loaded with oil.

After use each pillow can be disposed of as dry waste since hydrocarbon is reduced to Carbon Dioxide and Water.

The pillow immediately absorbs any free oil within the surface water and is capable of absorbing up to 14 times its weight in oil (equivalent to 9 litres). Over a 4 month period we estimate that each standard size pillow has a potential to change + 18 kgs of oil into CO₂ and water.

ADVANTAGES

- Easily placed in the surface layer of an interceptor or laid in culverts to remove surface oil. Tie to any convenient fixing point.
- Once in place requires no maintenance other than periodic replacement, (approximately every 6 months).
- Once the oil bacteria start growing each pillow is capable of degrading in excess of 1,5 kg of oil per week.
- Non-toxic, contains no hazardous materials.
- Supports function of natural bacterial flora to digest oil and grease.
- Reduces significantly the volume of free oil in an interceptor.
- When source of oil can be predicted, pillow contents can be optimised to deal with expected contamination.
- Product is safe and requires no haz-chem labelling.
- Special treatment repels water to give maximum oil absorption.
- Tough, resilient and very durable.
- After use each pillow can be disposed of as dry waste.

DOSAGE (related to the influent flow rate)

For flow rates lower than 1 m³/h

- Prior the beginning of the trial, the separator would better be emptied.
- After the separator has been emptied, install 2 Z-BIO OBP100 in the last but one chamber and 1 Z-BIO OBP100 in the last chamber of the interceptor.
- Replace OBP units every 4 to 6 months depending on the difficulty of the problem.

For flow rates equal to or higher than 1 m³/h

Flow rate	dose for a 6 month period last but one chamber	dose for a 6 month period last chamber
1 m ³ /h	2 OBP	1 OBP
3 m ³ /h	4 OBP	2 OBP
9 m ³ /h	8 OBP	4 OBP

PACKAGING : Box of 5 OBP

Storage and Handling:

- Store in a cool dark place
- Avoid eye contact
- Do not ingest
- Wash hands thoroughly with warm soapy water after handling