

SORBICELL VOC

A novel patented technology for passive sampling of VOCs from water



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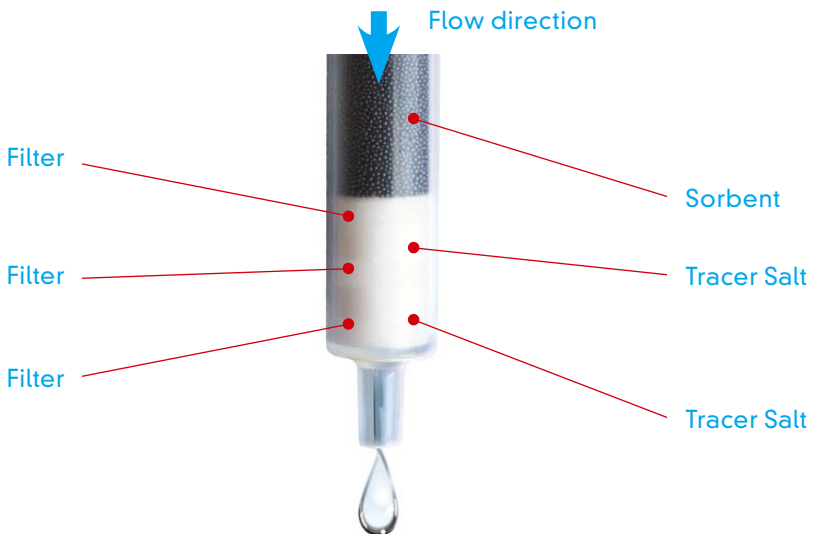
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The **SorbiCell** is an effective patented sampling unit for use in Sorbisense mounting systems.

SorbiCells provide reliable and representative data whilst reducing cost, logistics and time associated with environmental monitoring of groundwater, surface water and drinking water.

The SorbiCell consists of a polypropylene cartridge containing:

- a) An effective sorbent, designed to adsorb volatile organic substances (VOCs) from water passing the cartridge.
- b) Environmentally friendly tracer salt that dissolves proportionally with the volume of water passing the cartridge.
- c) Special filters between sorbent and tracer salt compartments.



When the sampling period is over, the SorbiCell is sent to a laboratory for extraction and analysis. The analysis results give the average concentration of each contaminant (e.g., 10 ug/L of vinyl chloride).

Technical Specifications:

Diameter:	11 mm
Length:	75 mm
Weigth:	ca. 3 g
Volume:	3 ml
Material:	Polypropylene cartridge, polymer sorbent (styrene), environmental friendly tracer salt and polymer-/glass filters
Detection limit:	0.2 µg (per individual solute).
Measuring range:	0.1 – 0.5 litre of water.

SorbiCell's are supplied in packages of 6 cartridges.

SorbiCell (VOC) measures these Volatile Organic Compounds:

BTEX & MTBE	Chlorinated compounds "top 10"	Other compounds	
benzene	vinyl chloride	dichlorodifluoromethane	bromobenzene
toluene	1,1-dichloroethene	trichlorofluoromethane	1,1,2,2-tetrachloroethane
ethylbenzene	trans-1,2-dichloroethene	1,1-dichloroethane	1,2,3-trichloropropane
p/m-xylene	cis-1,2-dichloroethene	2,2-dichloropropane	2-chlorotoluene
o-xylene	trichloromethane(chloroform)	bromochloromethane	4-chlorotoluene
1,3,5-trimethylbenzene	1,1,1-trichloroethane	1,1-dichloropropene	t-butylbenzene
propylbenzene	tetrachloromethane	1,2-dichloropropane	1,2,4-trimethylbenzene
methyl tert-butyl ether (MTBE)	trichloroethene (TRI)	dibromomethane	sec-butylbenzene
	tetrachloroethene (PER)	bromodichloromethane	1,3-dichlorobenzene
		c-1,3-dichloropropene	p-cymen(4-isopropyltoluene)
		t-1,3-dichloropropene	1,4-dichlorobenzene
		1,1,2-trichloroethane	1,2-dichlorobenzene
		1,3-dichloropropane	n-butylbenzene
		dibromochloromethane	1,2-dibromo-3-chloropropane
		1,2-dibromoethane	
		chlorobenzene	1,2,4-trichlorobenzene
		1,1,1,2-tetrachloroethane	hexachlorobutadiene
		styrene	naphtalene
		bromoform	1,2,3-trichlorobenzene
		cumen (isopropyl-benzene)	

We recommend limiting the number of compounds analysed to only relevant compounds and in accordance with standard analysis "packages" offered by the laboratory. Contact Sorbisense for further information.

SorbiCell VOC standard products:*

Product ID	Hydraulic resistance	Choose for
042-101	Low	Short measuring periods / shallow measuring depth
042-102	Medium	Medium periods / medium depths
042-103	High	Long periods / deeper measuring depth

*packaging 6 pcs

Table with recommended sampling times* in days, for different depths of installation.

Depth of installation (m):	0.5-1m	1-2m	2-5m	5-10m
SorbiCell 042-101:	8-40	1-4	1-2	n.r.
SorbiCell 042-102:	30-90	5-18	3-11	2-7
SorbiCell 042-103:	n.r.**	18-60	12-30	8-25

* sampling rates may be reduced in turbid water with high colloid loads

** n.r. = not recommended

Please observe the following:

All SorbiCells should be stored cool and out of light until use. SorbiCell's should be installed within three months from their production date printed on the package.

When installing SorbiCells, the adsorbent end should always be upstream to avoid contamination by the tracer salt.

Remove the protection caps from both ends prior to installation. Keep these protection caps – you can use them for sealing the SorbiCell after the measurement is finished.

SorbiCells must be kept wet until installation to avoid the hydraulic conductivity of the SorbiCells is changed e.g. by air-bubbles.

Pre-pumping is not necessary when measuring in groundwater.

SorbiCells are shipped to the laboratory e.g. in craft bubble envelope. If SorbiCells are stored before shipment they should be stored at +4degree C and out of light.

Unused SorbiCells may be disposed as household waste in accordance to local regulations. Used SorbiCells may be disposed as household waste in some cases. If in doubt the SorbiCells should be disposed of as chemical waste in accordance with local regulations.

