



## THE VIVELLE BIOMOP®

There is a significant movement, more so in some countries than others, towards ecologically friendly products and standards. This is particularly the case in Sweden and the trend will continue, at differing rates, elsewhere.

While the standard VIVELLE Dynamop® can be incinerated with no negative impact; it will not disintegrate in landfill or composting. This is due to the nature of the laminate. It has a polyethylene fiber pile attached to a viscose non-woven substrate. While the viscose non-woven is biodegradable the polyethylene is not. This is due to its chemical structure; large molecules with long carbon chains and the fact that antioxidants and stabilizers are used in the manufacture of derivative products.

We have now been able to develop the VIVELLE BioMop®, a biodegradable version of the VIVELLE Dynamop®. By adding a special compound to the polyethylene the breakdown of the long carbon chains is speeded up.

This is particularly effective in landfills. The process occurs in two stages, namely fragmentation and mineralization. It is speeded up by oxygen, moisture and the heat generated within the system. The molecular weight is reduced from about 80,000 to less than 5,000 and at this point micro-organisms take over and complete the biodegradation of the VIVELLE BioMop®.

Independent tests were carried out on the Biomop at the Swiss SV Kompostieranlage Bellach AG which composts on an industrial scale open air windrow. The results were as follows:-

- 2 weeks – a distinct visible disintegration of the specimens
- 4 weeks – only single specimen fragments of about 20 mm (3/4") found
- 6 weeks – very few fragments at a size of a few mm (1/8") were found.

This report summarized that the VIVELLE BioMop®-

- completely disintegrated during the maturation of a landfill
- the residue occasionally found after six weeks is in a negligible volume/weight ratio, and
- will not influence the landfill quality in a negative way.

These results coincide with those on more extensive testing taking place on polyethylene films containing this compound. These are covered in detailed reports from EMPA Switzerland, which undertook mineralization in soil columns and tested the soil quality (Test Report 422809), and the SP Swedish National Testing and Research Institute which evaluated the kinetics of the thermo-oxidation degradation (ref KMle 6230-1a). Detailed copies of all these reports are available upon request.

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O'Dell distributes BioMop® in the USA under the BioFiber® brand.