

**September 2017**

## **Biodegrading, Composting Recycling and Flushing of Airlaid**

As part of this correspondence you will find the **Disintegration Test Results and Study Report** on the product. The report covers how the product degrades in water, municipal dump, biodegradability etc.

Airlaid is biodegradable, more so than nonwovens in general, as most nonwovens contain polypropylene or polyester and is not biodegradable if they contain PP or PET – like all products containing varying components have differing biodegradability timespans. The 80% paper component in airlaid will biodegrade faster than the latex binder (which is a natural substance) but will biodegrade in full over time.

### **Airlaid Biodegradability:**

Airlaid is produced from 76% Fluff pulp which is 100% biodegradable /+-20% Bi-component fibres for tensile strength and +- 4% EVA binder- Ethylene Vinyl Acetate.

As a combination, the product will break down reasonably quickly largely by virtue of the high fluff pulp content followed by the binder and then leave the Bi-component fibres which will take a longer to break down completely .

The claim that airlaid is biodegradable is correct in that it breaks up over time given the correct environment as can be seen by the attached report. It takes 28 days for airlaid to break up which is concurrent with the paper towel biodegradable figure as below.

### **Below a table on how different items biodegrade:**

Approximated time for compounds to biodegrade in a marine environment <sup>[3]</sup>	
<b>Product</b>	<b>Time to Biodegrade</b>
Apple core	1–2 months
General paper	1–3 months
<b>Paper towel</b>	<b>2–4 weeks</b>
Cardboard box	2 months
Cotton cloth	5 months
Plastic coated milk carton	5 years
Wax coated milk carton	3 months
Tin cans	50–100 years
Aluminium cans	150–200 years
Glass bottles	Undetermined (forever)
Plastic bags	10–20 years
Soft plastic (bottle)	100 years
Hard plastic (bottle cap)	400 years

## **Flushability:**

Our Airlaid is flushable in the attached report airlaid is proven as 100% flushable in normal systems but isn't recommended to be flushed down septic tanks as per below.

The reason this is not recommended in this European test, is that all septic tank systems and some sewerage systems in Europe are operated by pumps. There is also a filtration system attached to the pumps and tests were conducted to check the usage on this basis. It is clearly shown that given the breakdown of the paper only after 28 days to pass through the filter system, it was not suitable for these systems. This applies to all products bar toilet tissue and includes for example kitchen towels, albeit that kitchen towel does not contain bico fibres.

South African septic tanks, where they do exist, do not contain pumps nor filters and tanks are emptied by suction. In this instance it would be extracted from the septic tanks as partial solid matter if extracted prior to 28 days, as it also would be in the standard.

Conclusion therefore would be that in South Africa septic tank systems, where pumps and filters are not used, above would not be applicable and can be flushed in a septic tank, it is however generally recommended that nothing but toilet tissue be flushed down septic tanks and therefore we would suggest that you contact an expert on septic tanks and ask for their input.

During 2012 the Western Cape tourist booked 16,3m room nights and this year would be more than 20 000 000 room nights. The article in the Rapport the past weekend indicated that 450 000 international visitors will come to Cape Town over the holidays.

The majority of hotels use linen napkin that get washed up to 3 times per day.

## **Some interesting facts:**

To wash a single linen napkin uses 250ml of water

A Linen napkin can be washed 50 times before replacement

Linen napkin cost around R30 each to replace

To make a linen napkin produces more than 1 kilo of greenhouse gas

To wash and dry a linen napkin produces 15 grams of greenhouse gas