

COMPOSTcover the covering, the handling

## COMPOSTcover

Composting is a complex chemical, physical and biological process. Precondition for an optimal process is the adjustment of the ideal moisture in the material. To secure that wind, sun and rain has little or no influence on your process, compost piles should be covered at all times. This will protect against soaking or drying out your material, will prevent leaching of nutrients out of the piles and reduces odour emission.

There are several options to cover your piles. The most expensive but also longest lasting option is a fixed building for shelter. Alternatively the compost may also be covered with a textile.

In this case the cover is placed directly on the material. The industry makes a basic difference between covering with a **semipermeable membrane**, or the cover with **fleece**.

The compost-industry proven fleece cover consists of a

200 g/m² PP (polypropylene) endless fibre non-woven product, with an expected lifetime of no less than 5 years. Standard widths are between 3 m and 6 m. The most important function is the transport of water inside the fabric, while having no influence on the gas exchange.

Alternatively the compost may also be protected by a semipermeable membrane.

Membranes in comparison to fleece, transport the water on the surface of the fabric.

Suitable for composting have proven three layer products, where the inner layer consists of a teflon membrane that is protected from both sides with a strong polyester fabric.

The most important function for a membrane is the prevention of odour release. This function is only provided by a fleece cover, when it is wet.

It is proven that membrane covers can reduce the

odour emission by as much as 95 %.

Elementary requirement for the function of a membrane is an active aeration system. Membrane composting without aeration is technically not possible as the gas exchange rate would be insufficient for the oxygen demand of the composted material.

This would cause the process to become anaerobic and consequently produce even more odours.

A membrane can only work with a slight overpressure. This means rips, or holes have to be prevented or fixed immediately to maintain the odour reducing function.

In any case, it is essential to think about the practical method of managing your cover on your site. We are offering various practical solutions to place, remove or store the covers on a compost plant. It is important during the storage of the covers, to keep them dry and not offer a home to any parasites. Speed and convenience is also an urgent issue of handling!









semipermeable Membrane



Uncover, store, cover:

All positive aspects of covering compost, remain with one question: The handling!
Dirty, wet, in winter frozen to the ground, covers are sometimes hard or impossible to move by hand.

To make it simple, we are offering solutions for wheelloaders, tractors, attached to your turning machine or even self-driven rolling machines.

For front end loaders, we offer a solution where the covers are rolled up on a winding rod. With a quick coupler each rod can be released from the winding machine within seconds. All functions controlled from the cabin.

In an equal way, the covers can be manipulated with the turning machines or as a self-driving vehicle. Our Technicians will be happy to assist you, to find the best suitable solution for your facility.

Please feel free to contact our engineers and take advantage of 30 years of experience.











Here you can find the video:













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## **Technical Data:**

Our **fleece** is supplied in the size of 3 m, 4 m, 5 m and 6 m width and in a standard length of 50 m!

KSV 200	weight	200 g/m2	
Mechanical	bursting strength	EN ISO 10319	lengthwise:12,5 kN/m
		EN ISO 10319	crosswise:12,5 kN/m
	resistance to static puncture	2000 N	
Material	UV stabilized polypropylene continuous fibre; not biodegradable; recyclable		
Unit	width/length	3, 4, 5 or 6 x 50 m	

KSM 500 KSM 350					
First layer	composition	woven fabric polyester			
Second layer	composition	PTFE membrane			
Third layer	composition	woven fabric polyester			
Finished fabric	weight	500 ± 5% g/m2			
	Tensile strength (maximum	XEC001	Warp: 5100 N/50 mm + 200		
	average load)	(UNE 40085-75)	Weft: 4300 N/50 mm + 200		
	Thickness	XEC013 (UNE EN ISO 5084)	0.95 + 0,05 mm		
	Breathability (Water vapour transmission)	FNM-817	≥ 4000 g/m2/24h		
	Air permeability	UNE EN ISO 9237:1996 (200 Pa)	≥0,857-8,237 m3/m2h		
	UV Retardant	UV retardant finished			
	Flame Retardant	Flame retardant finished			
	dimensions	customized / produced to requirements (6.5m/14.5m) is possible			



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## **COMPOST SYSTEMS GMBH**

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