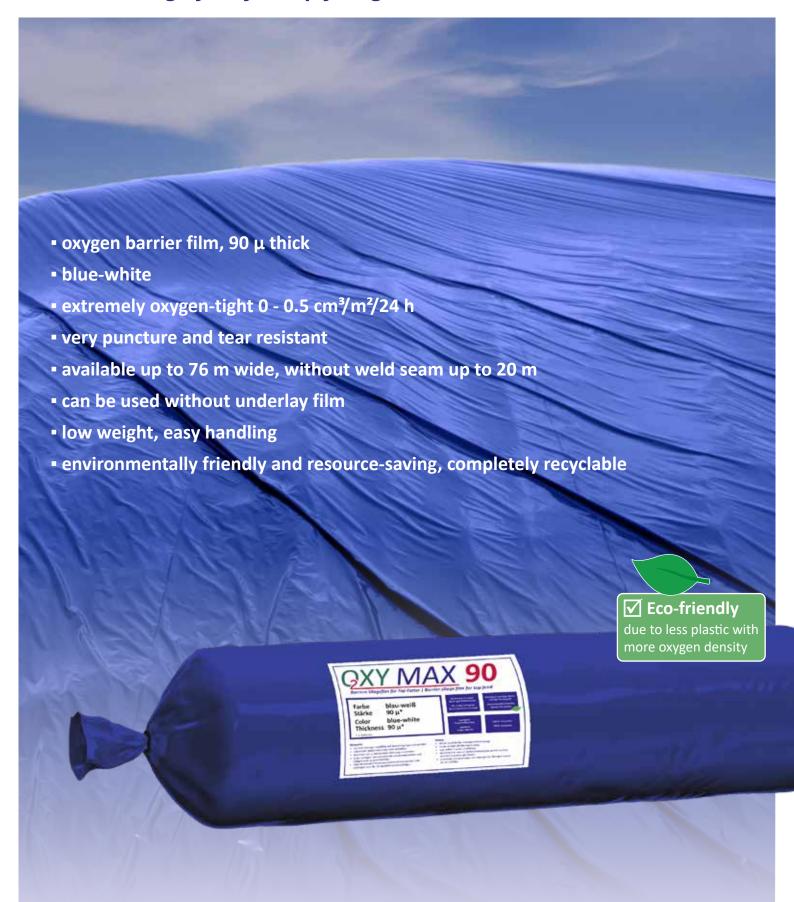
# QXY MAX 90

Barrier silage film for top forage



## GXY MAX 90

#### Why 90 μ?

#### - Agriculture with responsibility!

Imagine the amount of plastic that is produced, transported, used and then recycled every year:

Up to 50 % less plastic with the OXY MAX 90!

### Made from top raw materials for

- tear resistance
- elasticity
- puncture resistance

### 90 kg standard silage film

150  $\mu$  top sheet + 40  $\mu$  cling film approx. 90 kg at 10 m x 50 m

**45 kg** OXY MAX 90

 $90 \mu$  single silage film approx. 45 kg at  $10 m \times 50 m$ 

#### Meaning:

- √ up to 50 % less plastic granulate has to be produced and transported at great expense
- √ up to 50 % less silage film has to be processed and transported
- √ up to 50 % less used film has to be disposed of

That's what we call sustainable!

### How do we protect our $90 \mu$ ?

Beaks and claws cause major damage to silo covers of all kinds every year. Silo protection grids help, but the narrow claws of birds hopping over the silo reach through the grid and damage

in many small, often invisible holes under which mould and spoilage form. This is better with our **OXY**Protec®! (More information on the back)



### Oxygen permeability (according to DLG standard)







### Protect nutrients and ensure feed hygiene

While moulds grow rather slowly, yeasts react to favourable conditions with a rapid rate of reproduction. The chart below clearly shows how the duration of exposure to oxygen increases the growth of the populations.

Many people believe that as long as the silage is stored under cover, the influence of oxygen plays a secondary role. It only becomes dangerous when the silage is opened. However, people forget that oxygen seeps into the silo through the polythene film the entire storage period. Yeasts and mold benefit from this and the number of colony-forming units (CFU) increases.

The more intensively the yeasts and moulds have developed under the film, the more nutrients they will consume when the silo is opened and air from the cut surface is added.

Conclusion: The longer the storage period, the more air seeps through a 'normal' silage film. Under the gas-tight **OXY MAX 90**, on the other hand, yeasts and mold are suppressed and feed hygiene is improved. This is positive for profitability and also a plus for animal health!

An analysis of 31 studies with different films provided the following results on the general effect of barrier films on silage:

- under the barrier film, 41.5 % (= 81 kg/t) less DM was lost in the upper 50 cm due to air intake
- in the upper 50 cm under the barrier film, there was 72 % (77.4 kg/t) less spoiled/mouldy silage (total loss)
- the stability in the air increased from 3.1 to 5.6 days with the barrier film

#### Scheme yield loss **OXY MAX 90** Standard PE-silage film **Benefits OXY MAX 90 After 10 months** After a week At the opening Standard PE-silage film Standard PE silage film Standard PE silage film elimination of unwanted microbes yeast 10^4 / mould 10^2 Hefen 10<sup>5</sup> / Schimmel 10<sup>3</sup> yeast 10^7 / modild 10^5 Fermantation phase (rest oxygen) faster elimination of unwanted mic OXY MAX 90 OXY MAX 90 OXY MAX 90. yeast 10^2 / mould 10^2 Hefen 10<sup>2</sup> / Schimmel 10<sup>2</sup> yeast 10<sup>4</sup> mould 10^3 Storage phase **Extraction phase** Losses Effect of air only through the film increasing effect of air from the surface open Spoilage visible Part of the upper 50 cm Standard $< 250 \text{ cm}^3$ increasing spoilage **OXY MAX 90** 0 - 0.5 cm<sup>3</sup> growth of yeasts and moulds must be disposed of, risk of mycotoxins increases no longer usable for feeding better hygiene under the OXY MAX 90 Yeasts and moulds can hardly develop under OXY MAX 90 ~ 2.50 €\*/m² ~ 1.50 €\*/m² ~ 0.70 €\*/m² \* savings 12 months 10 months

#### **OXY MAX 90** is available in the following sizes

lengt	length x width																					
m	6	7	8	9	10	12	14	16	18	20	22	24	26	28	30	32	36	40	44	48	52	64
35	✓	✓	✓	✓	✓																	
50	✓	✓	✓	✓	✓																	
75	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						
150	✓	✓	✓	✓	✓												✓	✓	✓	✓	✓	<b>✓</b>
225						✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓						

# QXY MAX 90

#### Covering as quickly as possible!



This ensures the energy and nutrient content and prevents later problems on the feed. Even after opening, harmful organisms become active again and accelerate the spoilage of the silage.

The faster we cover the silage, the less they can multiply beforehand.

### Lay loosely and allow for enough overlap!

Tightly applied films are more susceptible. They can no longer yield optimally when fermentation gases form and are more at risk of damage from being walked on. Loose laying ensures optimum adaptation to the uneven silage surface.

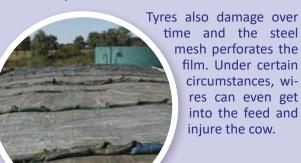
### Suitable air barriers – avoid tyres and sand!

Rigid tyres do not adapt to the silo surface. They do not form a continuous oxygen barrier.

Particularly after opening, the oxy-

Particularly after opening, the oxygen in the roll marks and on the slopes can pass unhindered under the film

and activate yeasts and moulds.



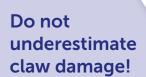
#### Sandbag: No! Gravelbag: Yes!

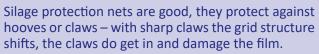


The best solution is silo bags filled with gravel. These are easy to handle, can be used variably and can be used for several years consecutive.

When laid as cross barriers, the oxygen only gets

as far as them. Even if there are unnoticed holes in the middle of the silo, the oxygen is prevented from spreading under the film.





An additional thick fleece can help here. This structure makes it harder for claws to penetrate the film.



### **Optimum protection means in practice:**

- good covering (quickly, loosely laid and secured with barriers) is important
- reduction of small holes from birds, cats etc. by 68 % (when using silage fleece)
- less oxygen
- better basic feed
- lower costs for concentrated feed