

# Forage Packaging

Quality film and net

Since the introduction of the 'Volac Big Bale Wrapping System' to the UK and Ireland in 1984, the practice of conserving grass in an individual package has revolutionised silage making on farms and helped improve animal performance.



volac 



# Topwrap®

## Why use Topwrap?

Volac has been involved in ruminant nutrition since 1970 and appreciates the value of good quality forage for successful livestock production.

In partnership with Trioplast, one of the world's largest and most progressive film manufacturers, Volac focuses on offering high quality wrap to protect the nutrients in forage and help conserve more from field to feed. Topwrap is a high performance wrap which gives excellent, proven protection to valuable forage.

## When/how to use

Rolls of Topwrap should be stored in dark, cool conditions, taking care not to damage the ends of the rolls. Bales should be dense, well-shaped and of 35-40% dry matter (DM). A minimum of four layers of film should be applied using a 50% overlap, though trials have shown that six layers can reduce losses, giving improved economic benefits.

Six layers  
must always  
be used for...

- DM 40% or above.
- Heavy chopped bales.
- All square bales.
- Bales for sensitive livestock e.g. horses, sheep.



## Features

- Unique formulation employing the best available raw materials.
- State of the art manufacturing techniques which give uniform stretch, thickness and reduced neck down.
- Available in green, black and white with a range of sizes.
- Superior impermeability to air and water.
- Strong and durable with ideal tack levels.
- UV protection for all climates.
- Supported by Volac technical backup and advice.

# Topwrap®

## Which colour to use?

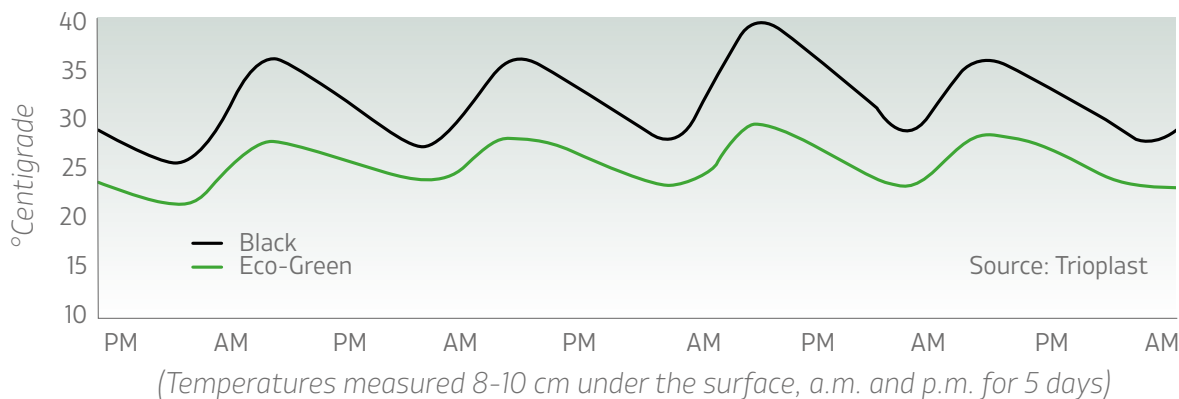
Use Eco-Green film to keep your bales cooler.

It has been specifically designed to minimise temperature variations in all weathers, helping to protect forage from proliferation of spoilage organisms all year round. Research has shown that the colour of the film can significantly affect the surface temperature of the bale by up to 20°C.

The permeability of film increases at higher temperatures, letting more air through into the bale. Higher temperatures together with more oxygen encourage spoilage organisms such as yeasts, moulds and clostridia which proliferate in these conditions and lead to the loss of valuable nutrients.



## Temperature Variations in Bales Wrapped with Different Film Colours (Temperatures 8-10 cm under the Surface)



Activity of Spoilage Organisms



# Topwrap®



## Volac RS1900 PreTech Technology film

Made using a revolutionary process in which film is stretched under controlled conditions before it goes on the roll. This helps the wrap to cling even more closely to the bale giving a superior air-tight seal. It is applied exactly as standard wrap, using the same gears and settings and the same number of layers.

### Why use Topwrap RS1900?

- Save time and money: one roll wraps more bales so you can wrap more bales/day
- Extra film per roll: wrap more bales per roll
- Wrap up to 10 more bales per roll: fewer roll changes
- Up to 10% cost saving per bale Fewer rolls, roll changes, roll handling and waste
- Proven to be as good as standard film
- No need to change gears: use interchangeably with standard wrap

### Example reduced cost per bale\*



@ £ 49.50 = 30 x



= £1.65/bale



@ £ 60.50 = 38 x



= £1.60/bale

No. Bales	Topwrap Original	Topwrap RS1900	Saving up to
100	4	3	1 roll
500	17	14	4 rolls
1000	34	27	8 rolls

### How much to use?

If you wrap bales with Topwrap RS1900 using the same stretch and same number of layers as standard film, you will need fewer rolls, save time and money and still produce top quality silage.

**Topwrap**  
Original

If one roll of standard film wraps these bales



**Topwrap**  
RS1900

then one roll of RS1900 wraps all of these bales



# Topwrap®



## Bale wrap

Product Offering	Code	Width (m)	Thickness (µ)	Length (m)	Weight of roll (kg)	Colour	No. rolls per pallet
Topwrap 750x0.025x1500 M Black	17510D	750	25	1500	27.2	Black	40
Topwrap 750x0.025x1500 M EcoGreen	17511D	750	25	1500	28	Green	40
Topwrap 500x0.025x1800 M Black	17515D	500	25	1800	22	Black	24
Topwrap RS1900 750x1900 M Black	19640D	750	21	1900	29.4	Black	15
Topwrap RS1900 750x1900 M EcoGreen	19638D	750	21	1900	30	Green	15
Topwrap RS1900 750x0.21x1900 M Pink	19734D	750	21	1900	28	Pink	15
Topwrap Xtreme 340x0.015x2400 EcoGreen	19802D	340	15	2400	13	Green	30
Horsewrap 750x0.025x1500 M White	3606D	750	25	1500	28.2	White	15
Horsewrap 360x0.025x1500 M EcoGreen	3622D	360	25	1500	13.5	Green	30
Horsewrap 250x0.025x1800 M EcoGreen	3620D	250	25	1800	11.2	Green	48
TrioBaleCompressor 1400x0,020x1750 M	19038D	1400	20	1750	46.5	Tinted White	16
TrioBaleCompressor 1400x0,017x2000 M	19046D	1400	17	2000	46.6	Tinted White	16

## These are just guideline figures

	Pre-stretch on wrapper	Core type	Approx no bales/roll (4 layers)	Approx no bales/roll (6 layers)
Topwrap Original	60 - 75	Plastic	30+	20
Topwrap RS1900	60 - 75	Cardboard	38+	25
Topwrap X-treme	35 - 55	Plastic	Up to 45	32
Horsewrap 750	60 - 75	Cardboard	30+	20
Horsewrap 360	*	Cardboard	**	**
Horsewrap 250	*	Cardboard	**	**
TriobaleCompressor	15 - 25	Cardboard	115 - 135	

\* Refer to instructions for wrapper \*\* Depends on bale size, temp, etc.





## Wrap bales/roll

Size (mm)	Roll Length (mtrs)	% Stretch	Microns	4 Layers	6 Layers	8 Layers
250mm	1800	35-55	25	*	*	*
340mm	2400	35-55	15	*	*	*
360mm	1500	35-55	25	*	*	*
500mm	1800	70	25	26	17	13
750mm	1500	70	25	30	20	15
750mm	1900	70	21	38	25	19

Pre-Stretch % Savings Over Std Films: RS1900 26.5% \* Depends on bale size, temp, etc.

## How to calculate no of turns:

Count the number of turns needed to cover the crop in the bale - this is usually between 7 & 12. ( example = 7 )
Add 1 turn to allow for the half-turn when starting the wrapping. (Example total now = 8.)
To give 4 layers, double that total (8 x 2 = 16)
Treble the figure for 6 layers. (24)
Quadruple for 8 layers (32)

This maths-based formula does not allow for any variation of bale or film size, wrapper table changes etc. & ensures that all bales are wrapped to suit the desired specification.

## Guideline figures - but each wrapper should be individually calibrated:

500mm Wrapper	750mm Wrapper
4 layers = 24 turns	4 layers = 16 turns
6 layers = 36 turns	6 layers = 24 turns
8 layers = 48 turns	8 layers = 32 turns

Number of bales/roll can be affected by a number of factors bale size/weather/Pre Stretch Tension etc.  
Above figures based on minimum 50% overlap.

**Disclaimer**  
The use of Topwrap cannot be expected to overcome poor silage making techniques, highly adverse weather conditions or unsatisfactory feeding-out procedures.



# Netwrap

## Volac Netwrap

high specification  
netwrap for baled silage,  
hay and straw

### Why use Volac Netwrap?

Volac has been involved in ruminant nutrition since 1970 and appreciates the value of good quality forage for successful livestock production.

In partnership with RKW, one of the leading companies in Europe for the manufacture of films and nonwovens, Volac offer a high specification netwrap as part of the solution to conserving quality forage.

A study (reported in dlz agrar magazine) comparing net wraps from various price categories manufactured by five leading companies revealed major differences in strength and stability between the different products. RKW netwrap was found to cover shoulders and edges accurately and evenly, proved to be a strong and stable wrap. The formulation has developed recently to make the net stronger and lighter (reduced from 9 to 8.6 g/m<sup>2</sup>). Its thicker chains feed into the baler and cut more easily.



**rkw**  
WHEN EXCELLENCE  
MATTERS



### Benefits

- Made from premium raw materials
- Suitable for all makes of round balers
- Edge to edge performance
- Roll end marking (last 30m)
- Directional roll side marking
- Available in 3,000m and 3,600m lengths
- Every roll is UV stabilised
- Carrying handles
- Wide range of widths and lengths
- Certified quality assurance EN ISO 9001:2000

All of which mean that our Netwrap is designed to perform well in the baler, remaining tangle free and giving edge to edge coverage of the bale to make well-shaped, even bales.



# Netwrap



## Packaging

Each roll of Netwrap is supplied wrapped in a plastic cover with built-in carrying handles. There are 28 rolls stacked on a pallet, with spacers for stability, all secured with a stretch hood.

## How many revolutions to apply?

Two to three turns make a perfect bale.



## Netwrap

Product Offering	Code	Width (m)	Length (m)	Weight of roll (kg)	No. rolls per pallet	No. pallets per full load	No. chains	Weight of net (g/m <sup>2</sup> )	Colour	End stripe
Topnet	101226D	1.23	3000	33.21	28	20	53	9.0	Green/yellow	Red
Topnet Xtra	101225D	1.23	3600	39.85	28	20	53	9.0	Green/yellow	Red
Rondotex	101406D	1.23	3000	33.21	28	20	53	9.0	White	Red
Rondotex	101407D	1.23	3600	39.85	28	20	53	9.0	White	Red
Rondotex	101480D	1.23	4000	44.28	28	20	53	9.0	White	Red
Rondotex	101408D	1.25	3000	33.75	28	20	53	9.0	White	Red
Rondotex	101409D	1.3	3000	35.1	28	20	53	9.0	White	Red



# Netwrap



## Features

Made from premium raw materials	High and consistent quality and performance
Suitable for all makes of round baler	Versatile product
Edge to edge performance	Makes well shaped, even bales
Roll end marking (final 30m)	Advance warning that roll needs replacing
Directional roll side marking	Shows which way to put the roll into the baler
UV stabilised	Guaranteed for 12 months - will not degrade in sunlight
Core label	Ensures traceability of each roll in the event of any problems
Carrying handles	Makes handling the rolls easier
Wide range of widths and lengths	To meet requirements for all sizes of enterprise

Rule of thumb: it takes about 10m to wrap one silage bale, so a 3000m roll will wrap approximately 300 bales.

## Netwrap bales/roll

Roll Length (m)	Approx no.bales/roll
3000	300
3600	360
4000	400

## Netwrap - turns for different crops

Crop	No. turns/bale
Silage	2.5
Straw	3.5 - 4.5
Hay	2.5 - 3.5

## Netwrap lengths/width available (edge to edge)

Length (m)	Available widths (m)
2000	1.23
3000	1.23 - 1.25 - 1.30
3600	1.23 - 1.25
4000	1.23





## Bale compressor

The Bale-Compressor film that simplifies handling and improves silage quality.  
“The new way to produce forage with well-designed product solutions.”™

### Unique benefits of Bale-Compressor film

It is now possible to produce ensiled forage without using net wrap. Trio Bale-Compressor is a new solution that, when used in combination with high-quality stretch film, makes bales easy and convenient to handle at the same time as the preservation of energy and nutrient content improves.

Silage bales that are baled with Trio Bale-Compressor have a considerably higher density and more stable shape than what was possible using net wrap.

Trio Bale-Compressor is made using Trioplast's unique PreTech® technology platform. This technology is based on a unique production method that can make thinner films without any loss of performance. The strength and convenience of this film make it easy to handle in the field. The film can be stretched tighter around the bales, resulting in bales that are more compact and have a higher density.

### Lighter and safer to handle

In addition to its ability to preserve high nutrient value, Bale-Compressor film produces compact and stable silage bales that are easier to handle and transport.

Bale-Compressor film also offers several major benefits during storage and feeding. Silage stretch film and Bale-Compressor film can be opened and removed in a single step. This means that manual handling can be minimised by using an automatic opener. The waste films can then be recycled in the same waste fraction, which saves a lot of time-consuming work.

### Product offering:

Article 19046: 1400 x 17mu x 2000 mtrs

Article 19038: 1400 x 20mu x 1750 mtrs

**Colour:** Tinted Green

**Packaging:** 16 rolls per pallet

### Everything points to Triobale Compressor

- Easier to open and designed for efficient use with an automatic bale opener.
- No problem with net that freezes to silage in winter.
- All waste can be sorted in the same recycling fraction.
- Compact bales that are easier to handle, and that provide right conditions for improved silage quality.
- Safer bale handling with bale handler.
- Lower risk of puncturing film layers during wrapping.



# Silage additives



## Silage additive for bales

Bales come in all shapes and sizes but they all have the same issues. They are made from higher dry matter (DM) forage so fermentation is slower and losses higher. Their high DM also makes them prone to aerobic spoilage as does their low density and high surface area to volume ratio, leading to potentially very high DM losses. Mouldy bales are also unpalatable and can contain mycotoxins, as well as listeria bacteria which are a particular problem for sheep. Very high DM haylage bales are particularly vulnerable to moulding, a big problem if they are being fed to horses.

**DA Ecobale** silage inoculant contains two unique strains of lactic acid bacteria and a chemical preservative, all in one easy-use pack.

**MTD/1** – a well proven strain of *Lactobacillus plantarum* for improved fermentation and increased animal performance.

***Pediococcus pentosaceus*** – a specially selected strain that, in combination with MTD/1, helps to improve the fermentation.

**Potassium sorbate** – a safe, non-corrosive food and feed-approved chemical



preservative for improved aerobic stability.

## Mixing and application

- For liquid application only
- One can treats 16t of forage
- For big bales: add 1 can to 50 litres water & apply at 3 litres/t
- For mini bales: add 1 can to 100 litres of water & apply at 6 litres/t
- Tank mix life: 48 hours
- Shelf life (unopened): 2 years in a cool dry place. Once opened use within 3 days

## Ecobaler: for liquid application

Ideal for balers but can also be used with forage harvesters or forage wagons. Capacity 250 litres.

## Benefits

- Faster, more efficient fermentation – reduced losses & increased palatability
- More consistent bales – ideal for fussy feeders
- Less waste from damaged bales – more to feed
- Opened bales last longer – less waste and health risks
- Less risk of mycotoxins & listeria – healthier cattle & sheep
- Less mould spores – healthier horses
- Improved palatability – higher intakes
- Increased production & improved animal health – increased profitability



# Forage Packaging Team contacts

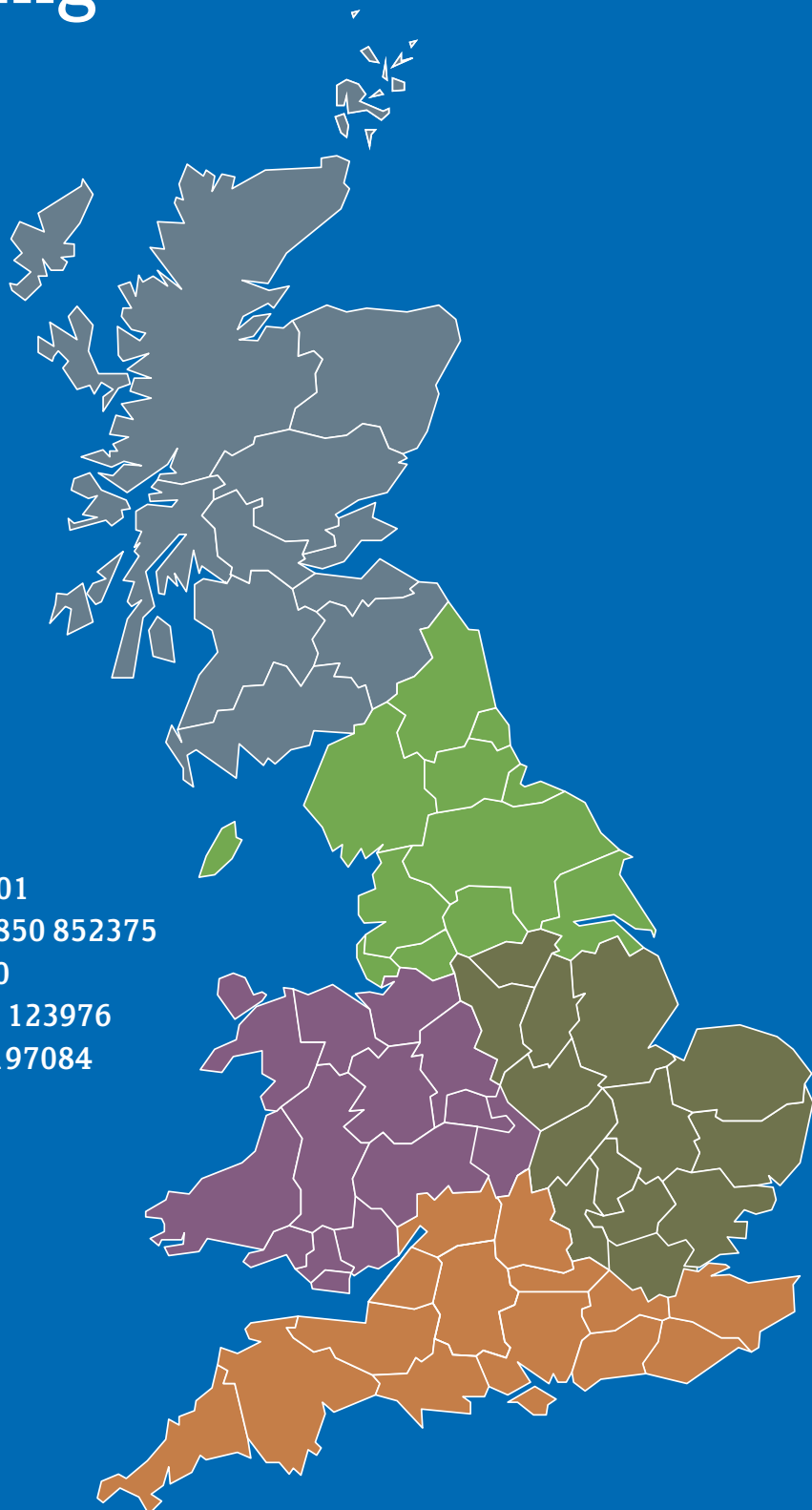
Contact your local Business Manager  
to arrange a no obligation chat:

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- Jason Short, Northern England | **07850 852375**
- Phil Brookes, Wales | **07860 188630**
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