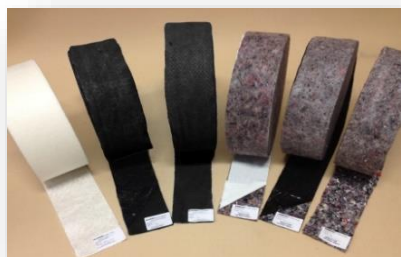




www.henofa.com

Product overview

Horticulture



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Company information

Since being established in 1993, Henofa has grown into an internationally operating producer and supplier of needle felt and nonwovens. In the horticulture sector, a very strong market position has been captured with self-developed, own brand name products, on both at national and international level.

Our products are being sold worldwide, including in the Netherlands, Germany, Belgium, United Kingdom, Italy, Spain, Portugal, Denmark, Sweden, Norway, Finland, Switzerland, Hungary, Estonia, Latvia, Brazil and the United States.

Henofa BV stands for quality, service, reliability and flexibility. Due to the acquired knowledge and experience in the field, we are able to fulfil an advisory role in every step of your (customer) process. That makes us a very complete and effective partner.

In this catalogue you will find an overview of our complete Horticultural product range.

If there are any questions and/or remarks, please do not hesitate to contact us.

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About capillary mattings

Why capillary mattings?

A capillary matting distributes and buffers water evenly over pot plants and should be described as the final link between nature and science during cultures. A functional and efficient operating capillary matting is essential for creating an appropriate end product during cultures.

3

Using capillary mattings offers several advantages:

- Water delivery/supply from underneath, which has a positive effect on the development of plant roots in pots.
- Investments in expensive and complicated pipe systems are unnecessary.
- Offers flexibility, enables growing of several different types of pot plants on one particular type of capillary matting.
- Good accessibility; swift and flawless culture changes.
- Less vaporization of water.
- Low investment costs.
- Low system maintenance costs .

Two factors play an important role in the decision making process:

capillary action and **water capacity**.

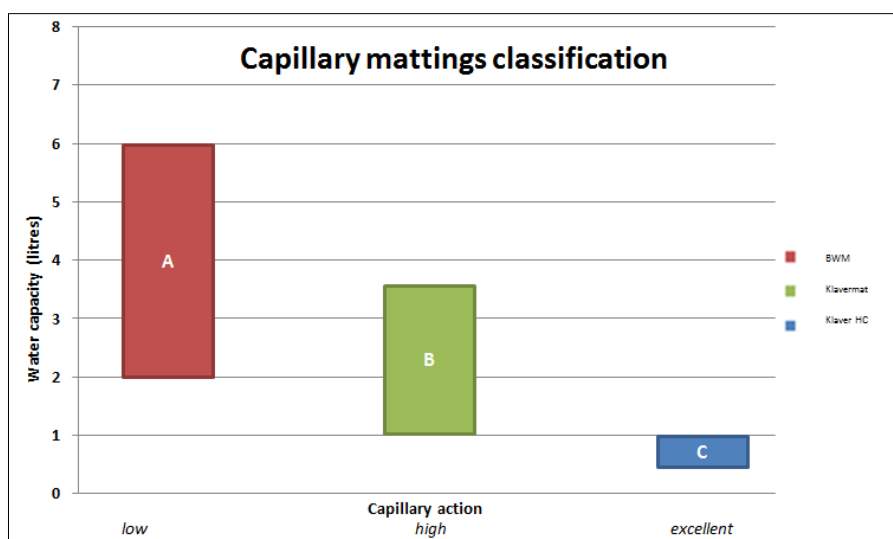
The term **capillary action** refers to the degree in which the capillary matting distributes water evenly over the entire surface. **Water capacity** is closely related to the buffer function of a capillary matting, and simply states the amount of water it is capable of holding.

Why choose for capillary mattings from Henofa?

Henofa BV offers a complete product range of different types of capillary mattings, divided into three groups. For every type of culture, Henofa produces and delivers the most suitable capillary matting. Thereby, our experience and craftsmanship enables us to offer suggestions and solutions for all inquiries.

The graph listed below provides an overview of the three different groups/types of capillary mattings from Henofa, based upon two variables, **capillary action** and **water capacity**.

- A-group** A high water capacity combined with low capillary action
- B-group** A high water capacity combined with high capillary action
- C-group** Excellent capillary action combined with a low water capacity



	BWM+	Klavermat	Klavermat HC
Capillary action	Low	High	Excellent
Water capacity	3,0 – 6,0 liter/ m ²	1 – 3,5 liter/ m ²	0,8 – 1,20 liter/ m ²
Material	Recycled synthetic fibres	New synthetic fibres	New synthetic fibres
Additional options	- Anti-algae foil - Ground cover	- Anti-algae foil - Ground cover	Large widths till 480cm
Group classification	A	B	C

BWM capillary mattings

The first group consists of the standard BWM capillary mattings. These type of capillary mattings are being manufactured from 100% recycled synthetic fibres, and do not contain any jute or cotton fibres. Jute and cotton, which are both natural fibres, have some tendency to rot and create mould.

This product offers a high water capacity in combination with low capillary action. For growers changing their culture system each year, the BWM capillary mattings are an excellent choice. It is also used frequently on (selling) tables and Danish trolleys.

BWM 200

Weight: 200 gr./m²
Length: 40 - 50 meter
Width: 10 till 250 cm
Water capacity: 3,0 - 4,0 liters per square meter

BWM 300

Weight: 300 gr./m²
Length: 40 - 50 meter
Standard: 10 till 250 cm
Water capacity: 4,0 - 5,0 liters per square meter

BWM 400

Weight: 400 gr./m²
Length: 40 - 50 meter
Width: 10 till 250 cm
Water capacity: 5,0 - 6,0 liters per square meter

BWM 500

Weight: 500 gr./m²
Length: 30 meter
Width: 10 till 250 cm
Water capacity: 6,0 - 7,0 liters per square meter



Klavermat capillary mattings

The Klavermat capillary matting is produced from 100% new, high-quality, virgin synthetic fibres and enjoys an excellent reputation in the horticultural sector.

An unique feature of the Klavermat is that each fibre has exactly the same characteristics and structure. The capillary matting thereby distinguishes itself due to its robustness, chemical permanency and consistent operation. This eventually leads to a reproducible and consistent water delivery.

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The standard colour of the Klavermat is black.

Klavermat 125

Weight:	125 gr./m ²
Length:	75 meter
Width:	10 till 250 cm
Water capacity:	1,0 – 1,5 liters per square meter

Klavermat 200

Weight:	200 gr./m ²
Length:	75 Meter
Width:	10 till 250 cm
Water capacity:	2,0 – 2,5 liters per square meter

Klavermat 300

Weight:	300 gr./m ²
Length:	50 Meter
Width:	10 till 250 cm
Water capacity:	3,0 – 3,5 liters per square meter



Klavermat HC capillary mattings

When looking for an excellent capillary action, the Klavermat HC capillary mattings offer the solution. The mattings are produced from 100% new, high-quality virgin synthetic fibres and the colour is white.

Whereas several competitive and comparable products contain viscose, the Klavermat HC capillary mattings are completely free of viscose. Viscose is biodegradable and could lead to diseases and/or moulds spreading in the water delivery system, leading to failures.

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Advantages of the Klavermat HC:

- Excellent capillary action combined with a low water capacity.
- The Klavermat HC capillary mattings are capable of eliminating an oversupply of water.
- Due to its excellent capillary action, it is possible to overcome small differences in heights, for example on small hills.
- Can be used in all different types of eb and flow systems, that is possible due to the excellent and swift capillary action.

When using a Klavermat HC capillary matting during cultures, it is possible to lower the relative air humidity around plants, as you can provide less water more often. This lowers the chances of moulds, algae and infections.

Klavermat HC 80

Weight:	80 gr./m ²
Length:	200 meter
Width:	10 cm (per 10 pieces), 12 cm (per 10 pieces), 100, 120, 160, 180, 200, 220, 330, 480 cm
Water capacity:	0,80 – 1,0 liters per square meter

Klavermat HC 100

Weight:	100 gr./m ²
Length:	100 meter
Width:	100, 120, 160, 180, 200, 220, 330, 480 cm
Water capacity:	1,0 – 1,20 liters per square meter



About Cover materials

When making the choice to use capillary mattings, many growers forget the role of cover materials in the functioning of the capillary matting and the water delivery system as a whole. With cover materials, we mean anti-algae foil and groundcover.

The most important functions of cover materials are:

- Prevention of root growth in the capillary matting, the "rooting through".
- Prevention of algae growth in the capillary matting.
- Prevention of unnecessary evaporation.
- Extends the economic life duration of the capillary matting.
- Protects the matting against mechanical influences, such as walking, sweeping etc.

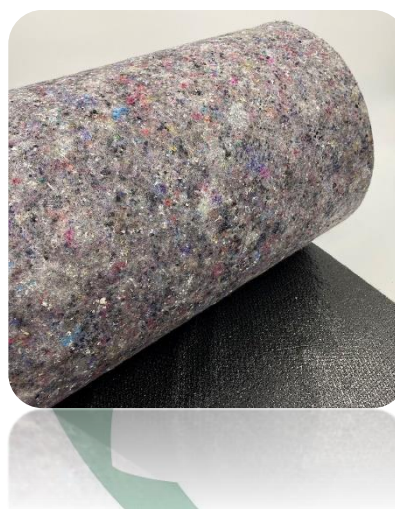
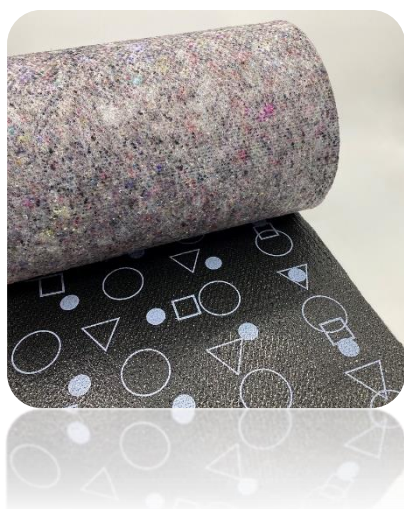
When purchasing cover materials and capillary mattings from Henofa, your customer is assured of a high-quality, reliable, efficient and complete water delivery system!

During production it is possible to equip the capillary matting types Klavermat 125, 200, 300 and BWM 200, 300 and 400 with a groundcover or anti-algae foil. This leads to savings in set-up costs.

Abbreviation

Description

+ BF	B lack F oil – black anti-algae foil 30 My (*)
+ WF	W hite F oil – white anti-algae foil 30 My (*)
+ SF	S ymbol F oil – black anti-algae foil with symbols 40 My
+ BGC	Black Ground Cover – 100 gr./m ²



Symbol foil (SF)

Symbol foil is available in the color black. The Symbol foil has fixed distances between the symbols. This allows the grower to accurately spread pot plants during cultivation. The distances between symbols are:

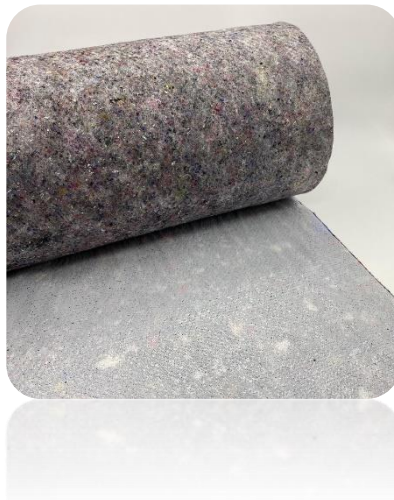
- Dots	124 millimeter	74,7 pots per m ²
- Circles	142 millimeter	57,7 pots per m ²
- Triangles	166 millimeter	42,9 pots per m ²
- Squares	199 millimeter	30,2 pots per m ²

Anti-algae foil (BF or WF)

Black or white anti-algae foil to prevent algae growth in the capillary mattings. Anti-algae foil also keeps the capillary mattings clean.

Ground cover (BGC)

The ground cover is needled directly onto the capillary matting, creating a strong product. BGC is a black ground cover with a weight of 100 gr./ m². The needling of fibers on the ground cover creates a perfect transition between fibers and covering materials.



Ground Cover

Ground covers are used as covering material for capillary mattings, or used "loose" along highways, embankments, green areas and city parks. The main tasks of the ground cover is to keep out weeds and roots, and to provide a stabilizing function.

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Heno ground covers are characterized by:

- Prevention of weeds and algae growth.
- Preventing root growth in the irrigation mat (the "rooting through").
- Prevent unnecessary evaporation of water.
- Provide protection against mechanical influences, such as walking and sweeping.
- High shrink strength.
- High UV resistance.

Heno Ground cover

Material for capillary mattings. For use on cultivation tables or (concrete) bases with standard load / pollution.

Weight:	100 gr./m ²
Material:	Polypropylene
Color:	Black
Water permeability:	10 L / M ² / sec
Length:	100 meter
Width:	50, 83, 105, 110, 128, 138, 165, 207, 257, 330, 415, 515 cm

Heno Ground Cover cut-to-size

Groundcover, which is being cut-to-size by a heated knife. By cutting with a heated knife, the edges will melt and this prevents the groundcover from fraying.

*Dimensions are available upon request.

Anti-algae foil

Henofa has a high-quality and strong anti-algae foil in its range, an excellent addition to your watering system.

In addition to the traditional anti-algae foil, the Heno Symbol foil is part of the range. The symbols ensure an accurate distribution of the pot plants during cultivation.

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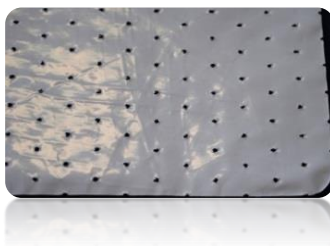
The following advantages are offered by the use of Heno Anti-algae foil:

- Heno Anti-algae foil prevents algae growth in the irrigation mat.
- Heno Anti-algae foil prevents evaporation.
- Heno Anti-algae foil is characterized by excellent water permeability.

Heno Anti-algae foil

Cover material for capillary mattings. To be used during cultivation in combination with an capillary matting.

Perforation:	Small or Large
Thickness:	30 micron
Color:	White or Black
Roll length:	100, 250 and 500 meter
Widths:	100, 120, 150, 165, 180, 200 and 210 cm



Symbol foil

Cover material for capillary mattings. Consisting of various symbols for problem-free and accurate distribution of potted plants during cultivation. To be used during cultivation in combination with an capillary matting.

Perforation: micro-perforation
 Roll size: 2.00 x 300 meter
 Thickness: 40 micron
 Colour: Black

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The distances between symbols can be found below:

Dots:	124 millimeters	74.7 pots per m ²
Circles:	142 millimeters	57.7 pots per m ²
Triangles:	166 millimeters	42.9 pots per m ²
Squares:	199 millimeters	30.2 pots per m ²



Geotextiles

To combat weed growth and frost, Henofa offers an extensive range of various Geotextiles.

Our Geotextiles materials offer you the following benefits:

- Free from chemical, harmful and foreign substances.
- (100%) biodegradable.
- Standard high-quality felt, not subject to quality differences.

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In addition to weed control, the felt can be used for various other application areas, such as for decoration, packaging and protection.

The different types of Geotextiles materials from which a choice can be made are:

Coir/Jute*

Heno KJ600

Material:	70% organic coir & 30% organic jute
Weight:	600 gr./m ²
Length:	50 meter
Width:	200 cm

Heno KJ800

Material:	70% organic coir & 30% organic jute
Weight:	800 gr./m ²
Length:	50 meter
Width:	200 cm

* The coconut/ burlap comes standard with a one-sided latex coating.



JuteHeno J400

Material: 100% organic Jute
Weight: 400 gr./m²
Length: 50 meter
Width: 200 cm

* Burlap is biological degradable.



Mulch Matt Pegs

Mulch Matt Pegs for capillary mattings and / or ground cover. Henofa supplies high-quality Mulch Matt Pegs, produced from strong, wear-resistant plastic. The product is available as standard in the following versions:

Plastic Mulch Matt Pegs

Color options: Black
Length: 15 & 19 cm
Packaging: 1.000 pieces



Mulch Tree Discs

Mulch Tree Discs are placed by growers to prevent the growth of weeds in pots. Henofa produces and supplies various types of Mulch Tree Discs, under the name "Heno Mulch Tree Discs".

All Mulch Discs are free of chemical and / or harmful substances and are not subject to quality differences.

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Heno Mulch Tree Discs offer even more advantages:

- Protects the plant against frost and low temperatures.
- Protects the root ball against drying out, because evaporation is inhibited.
- Stimulates healthy and stable root growth.
- No need to use expensive chemical pesticides.
- Saving time, money and effort. Plants need water less often.
- Direct sale of plants. No longer need to remove weeds from the pots first.

The following diameters are part of our range:

17 cm	18 cm	19 cm	21 cm	23 cm
26 cm	28 cm	30 cm	35 cm	

Synthetic (*)

Heno Mulch Tree Disc S300

- Produced of 100% recycled, synthetic fibers
- Weight: 300 gram/m²
- Economic lifespan: 3 year

Heno Mulch Tree Disc SG300

- Produced of 100% recycled, synthetic fibers
- Weight: 300 gram/m²
- Economic lifespan: 3 year
- Needled on groundcover



Heno Mulch Tree Disc S400

- Produced of 100% recycled, synthetic fibers
- Weight: 400 gram/m²
- Economic lifespan: 4 year

Heno Mulch Tree Disc SG400

- Produced of 100% recycled, synthetic fibers
- Weight: 400 gram/m²
- Economic lifespan: 4 year
- Needled on groundcover

* Synthetic fibers are not biodegradable

Coir / Jute (*)

Heno Mulch Tree Disc KJ600

- Produced of 70% biological coir and 30% biological jute
- Weight: 600 gram/m²
- Economic lifespan: 1,0 – 1,5 year

Heno Mulch Tree Disc KJ800

- Produced of 70% biological coir and 30% biological jute
- Weight: 800 gram/m²
- Economic lifespan: 1,5 - 2 year

* This quality has been specially developed for outdoor fields. The natural latex underlay prevents the Mulch Tree Disc from blowing away and keeps the disc in place.



Jute (*)

Heno Mulch Tree Disc J400

- Produced of 100% biological Jute
- Weight: 400 gram/m²
- Economic lifespan: 8 – 18 months

* Jute Mulch Tree Discs are biological degradable.

Wool (*)

Heno Mulch Tree Disc W400

- Produced of 100% biological Wool
- Weight: 400 gram/m²
- Economic lifespan: 18 – 30 months

* Wool Mulch Tree Discs are biological degradable.



Disinfection mattings

Disinfection plays an important role in the horticultural and agricultural sector. A common problem is that bacteria and fungi are carried into sterile rooms to soles of the feet.

To prevent this problem Henofa has developed a special range of disinfection products, consisting of the following products:

- HydroWalk disinfection matting
- HydroWalk disinfection matting + filling system

The disinfection mattings are multi-purpose and can be placed in front of entrances of:

- Greenhouses
- Stables
- Laboratories

HydroWalk disinfection matting

The disinfection matting is composed of highly wear-resistant materials. The outside consists of PVC fabric, which together with a PE mesh ensures a strong whole. The material inside the HydroWalk is a synthetic mat, which can retain liquids very quickly and in reasonable quantities. The HydroWalk is strong and robust. This makes it possible to cycle, walk and even drive a motorized vehicle on the mat.

Dimensions:

<u>Width</u>		<u>Length:</u>
60 cm	x	90 cm
90 cm	x	90 cm
180 cm	x	90 cm
180 cm	x	180 cm



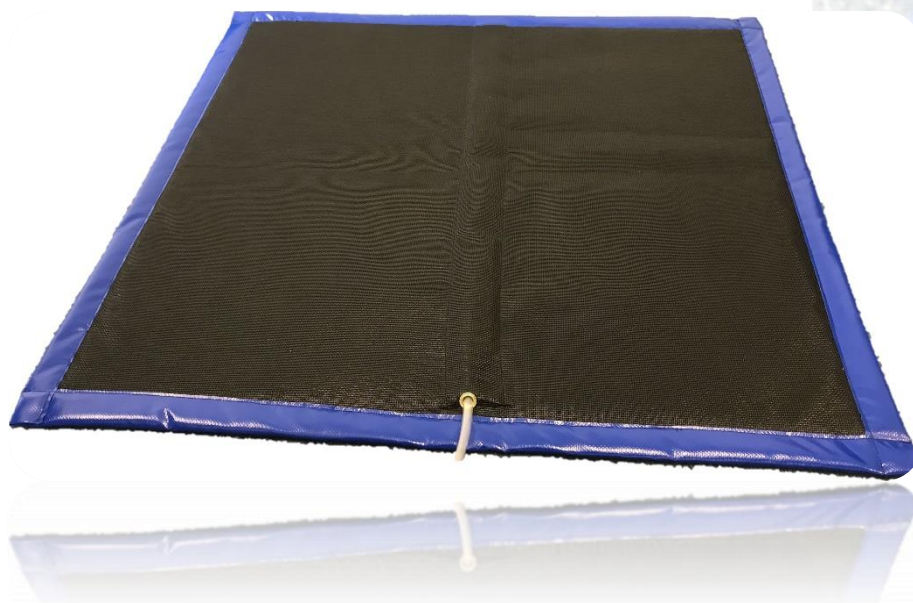
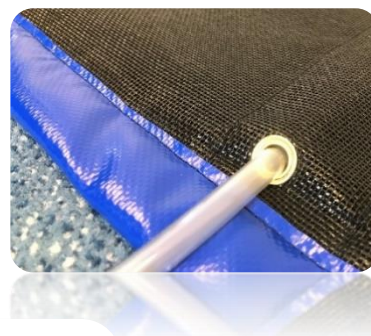
HydroWalk disinfection matting + filling system

The new model is equipped with an innovative filling system, which ensures an even distribution of the disinfectant over the mat. The filling system is so robust that vehicles can be driven over the mat.

Refilling is very simple, by linking the filling system to an automatic dosing pump. This way, the disinfectant is handled effectively and you don't have to worry about refilling the mat. Optimal operation is guaranteed.

Dimensions:

<u>Width</u>		<u>Length:</u>
60 cm	x	90 cm
90 cm	x	90 cm
180 cm	x	90 cm
180 cm	x	180 cm



Pool Liner Protection

Henofa has developed a special fleece that complements the construction and realization of ponds, swimming pools and water basins. Heno Pool Liner Protection is available in two types: PES and Recycling

Heno Pool Liner Protection (PES)

A high-quality protective fleece, produced from 100% new, synthetic fibers. A constant composition and excellent quality felt are guaranteed with every delivery.

Heno Pool Liner Protection PES is strong, robust and absolutely rot and mold free. In addition, it has a long lifespan.

Dimensions & specifications

Weight: 400 gr./m² / 700 gr./m²
Material: 100% new, high quality, synthetic fibers
Colour: White

400 gram:

Roll width: 2.00 meter
Roll length: 50 meter
Packaging: 5 rolls (1 pallet)

700 gram:

Roll width: 2.00 meter
Roll length: 50 meter
Packaging: 4 rolls (1 pallet)



* Other dimensions and quantities available on request.

Heno Pool Liner Protection (Recycling)

Heno Pool Liner Protection (Recycling) is produced from 100% recycled synthetic fibers. It is environmentally friendly and absolutely rot and mold free. Heno Pool Liner Protection (Recycling) has an excellent price-quality ratio.

Dimensions & specifications

Weight: 300 gr./m² / 400 gr.m²
Material: 100% recycled synthetic fibers
Color: Multi-color

300 gram:

Roll width: 2.00 meter
Roll length: 50 meter
Packaging: 5 rolls (1 pallet)

400 gram:

Roll width: 2.00 meter
Roll length: 50 meter
Packaging: 5 rolls (1 pallet)



* other dimensions and quantities available on request.

Isofoil Bubble Foil

The Henofa insulation range consists of the product Heno Isofoil Bubble Foil. The product is used for insulating greenhouses, stables, sheds or temporary seals for construction projects.

Heno Isofoil Bubble Foil is a high-quality PE bubble foil, made up of 3 layers. The product offers maximum protection against cold influences from the outside and heat loss to the outside. Heno Isofoil is highly translucent, so the loss of sunlight in your greenhouse, building and / or stable is minimal.

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Heno Isofoil

Diameter Bubble:	30 mm
Number of layers:	3
K-value:	2,4
Way of folding:	Folded or unfolded
Thickness of foil:	50 µm

Standard dimensions: (*)

1,20 x 50 meter (unfolded)
 1,50 x 50 meter (unfolded)
 2,00 x 50 meter (unfolded)
 2,40 x 50 meter (unfolded)

Special dimensions (*)

3,00 x 50 meter (folded)
 3,50 x 50 meter (folded)
 4,00 x 50 meter (folded)
 4,80 x 50 meter (folded)

* Folding method standard dimensions is flat. Note, special dimensions are welded.

Heno Isofoil offers the following specific benefits:

- Heat and cold resistance
- Highly transparent
- UV resistant
- Easy to process
- Energy savings of up to 40% can be achieved



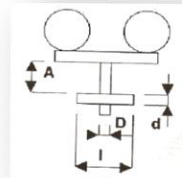
Bubble Foil Plugs

To mount your bubble foil to greenhouse bars, you can choose Heno Bubble Foil Plugs. These plugs are made of wear-resistant plastic and are available in various colors and sizes. A suitable plug is available for every greenhouse.

The colors and dimensions below are part of our range:

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Color	A (mm)	D (mm)	d (mm)	l (mm)
Brown	2	ø 5	2,5 x 3,5	11
White	5	ø 3	15	14
Green	2	ø 5	ø 3	19
Yellow	1	ø 6	4 x 2	18
Blue	1	ø 4,5	3 x 1	9,5
Pink	6	ø 5	ø 3	10
Salmon	5	ø 5	ø 3	10
Black	2	ø 5	2 x 4	11
Grey	3	ø 4,5	ø 3	14
Purple	3	ø 2	ø 2	4,5
Red	8	ø 5	ø 3	21
Orange	3	ø 4	ø 3	17



Capillary Wick

Heno capillary wicks are made from 100% new, high-quality synthetic fibers. The wicks have an excellent capillary effect.

The function of the capillary wick is to provide a continuous and fast supply of water, to supplement or replace traditional watering. The wicks are easy to place through the drainage holes in the pot.

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Capillary wicks are well suited for professional use as a sub-irrigation method. We supply capillary wicks for various pot producers, which are part of an automatic watering system for plants.

For home and hobby use, the capillary wick is a simple and inexpensive solution to keep plants supplied with water. For example, when you are on vacation or away from home for a longer period.

Weight:	100 gr./m ²
Material:	100% synthetic fibers
Water capacity:	1.0 - 1.20 liter/ m ²
Color option:	White
Length:	35 or 45 cm
Width:	2.8 cm
Packaging:	per 500 pieces