



Product catalogue

Garland, TX 75042, USA Tel: + (1) 972 272 2588
unicornbag@aol.com

Information contained in this catalog is for reference only. Responsibility of selection of bag type and use of bags rest in the user. Unicorn Imp & Mfg Corp assume no risks of loss or damages of any kind in the use of Unicorn Bags. Unicorn Imp & Mfg Corp warrant all bags to be defect free. Freight prepaid returns accepted for replacement of same bag type or other bag types we manufacture.

Product catalogue

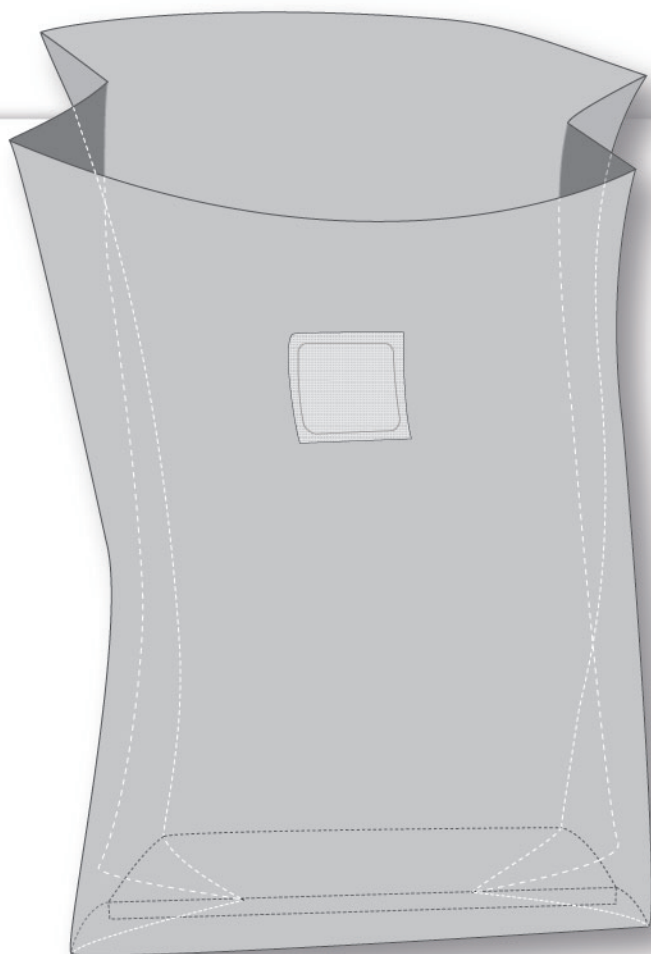
```

graph LR
    bags[bags] --- types_bags[types bags]
    bags --- types_filters[types filters]
    bags --- holes_descriptions[holes descriptions]
    
    types_bags --- gusseted_bags[gusseted bags]
    types_bags --- pillow_bags[pillow bags]
    types_bags --- A_B_T_Tv["A  
B  
T  
Tv"]
    
    gusseted_bags --- 4[4]
    gusseted_bags --- 10[10]
    gusseted_bags --- 14A_3T_and_3B["14A, 3T and 3B"]
    gusseted_bags --- XLS[XLS]
    
    pillow_bags --- unistrip[unistrip]
    pillow_bags --- multistrip[multistrip]
    
    unistrip --- 1[1]
    unistrip --- 2[2]
    unistrip --- 3[3]
    
    multistrip --- 7[7]
    multistrip --- 11[11]
    multistrip --- 12[12]
    
    types_filters --- L_holes["L holes"]
    types_filters --- Pin_holes["Pin holes"]
    
    holes_descriptions --- container_1[container 1]
    holes_descriptions --- container_2[container 2]
    
    other_products_autodavables[other products autodavables] --- test_tubes[test tubes]
    other_products_autodavables --- tissue_culture_containers[tissue culture containers]
    other_products_autodavables --- bottles[bottles]
    other_products_autodavables --- bag_clamp[bag clamp]
    
    consultory_contact[consultory contact] --- help[help]
    consultory_contact --- advices[advices]
    
    advices --- www_unicornbags_com["www.unicornbags.com"]
    advices --- unicornbag_aol_com["unicornbag@aol.com"]
  
```

A highlight

Plastic bags designed for Spawn production and Mushroom cultivation (Shiitake and other species that requires steam sterilization)

We manufacture our plastic materials and our filters.



GUSSETED Bags

Generally used for production of shiitake and other species requiring steam sterilization.

Unicorn bags in Gusseted style are chosen by many mushroom spawn producers for fast and reliable production of quality spawn. Gusseted style Unicorn bags can be manufactured using any of a large number of filters manufactured by our company. Unicorn bags can be supplied to be filled by any machinery.

The bag is opened by hand or automatic bag opening devices and the weighed substrate is placed in the bag by a funnel. The bag is filled to between 50 or 60% of its volume. The top of the bag is folded down, and the bag is sterilized. After cooling the bags are opened, preferably in a 'clean', filtered air stream, and mother spawn is placed in the bag. The bag is immediately sealed and shaken to mix the spawn with the substrate.

The bags are now ready for incubation.

This side-gusseted bag results in a sturdy stand-up bag after filling and it is strongly sealed at the bottom. We manufacture it with equipment designed by us, and with proprietary additives. Unicorn Bags are pliable at any temperature as well as after sterilization. The bag opening is designed for easy sealing and the seal at the bottom of the bag can withstand agitation.

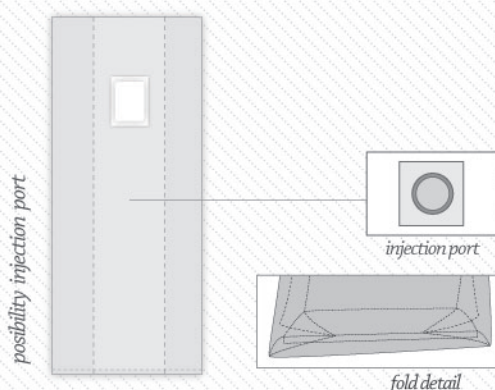
We can produce standard sizes and many custom sizes.

Custom polypropylene bags by Unicorn can be sterilized by gamma ray. Polyethylene (PE) and HDPE bags with filter are available.

These bags may include an injection port.

Bag type: 4

!gusseted bags



Technical specifications (inch / cm)

size: ☐ 18 x 4 " / 46 x 10 cm

filter: • type: ☐ A ☐ B ☐ T ☐ TV

• filter location: ☐ out

• filter holes: ☐ L holes

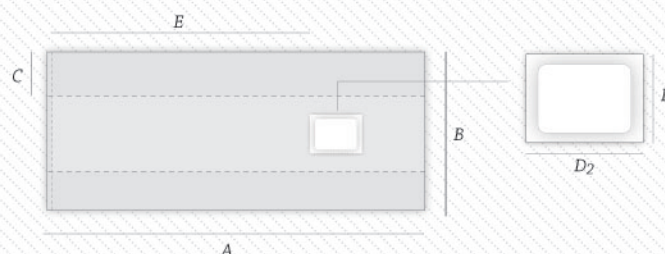
• filter size: ☐ 1,5 x 1,75 " / 3,8 x 4,5 cm

material: ☐ PP (Polypropylene) ☐ PE (Polyethylene)

injection port: ☐ Yes ☐ No

Size (inch)

| | 4 | 10 | 3T/14A | XLS |
|----------------|------|------|--------|------|
| A | 18 | 18,5 | 19 | 19 |
| B | 4 | 5,5 | 8 | 9,5 |
| C | 1,4 | 2,2 | 2,4 | 2,6 |
| D | 1,5 | 1,5 | 1,5 | 2,8 |
| D ₂ | 1,8 | 1,8 | 1,8 | 1,8 |
| E | 12,2 | 12,2 | 12,2 | 16,2 |

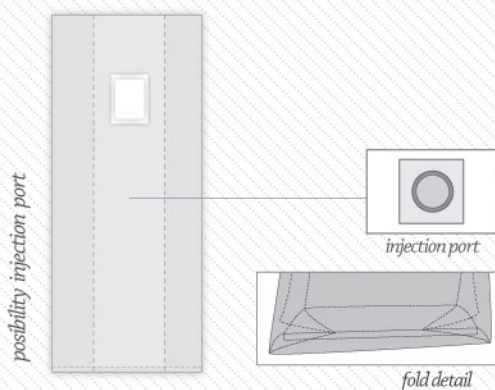


Size (cm)

| | 4 | 10 | 3T/14A | XLS | |
|-----|------|-----|--------|-----|----------------|
| 46 | 47 | 48 | 48 | 48 | A |
| 10 | 13,5 | 20 | 24 | 24 | B |
| 3,5 | 5,5 | 6 | 6,5 | 6,5 | C |
| 3,8 | 3,8 | 3,8 | 7 | 7 | D |
| 4,5 | 4,5 | 4,5 | 4,5 | 4,5 | D ₂ |
| 31 | 31 | 31 | 31 | 31 | E |

Bag type: 10

!gusseted bags



Technical specifications (inch / cm)

size: ☐ 18,5 x 5,5 " / 47 x 13,5 cm

filter: • type: ☐ A ☐ B ☐ T ☐ TV

• filter location: ☐ out

• filter holes: ☐ L holes

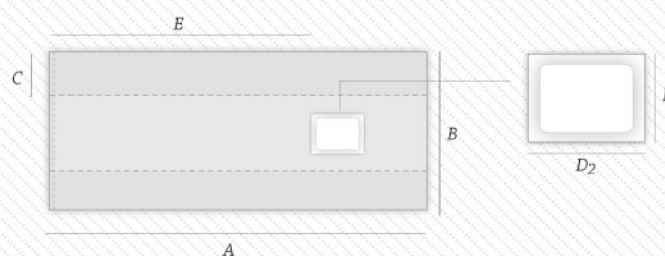
• filter size: ☐ 1,5 x 1,75 " / 3,8 x 4,5 cm

material: ☐ PP (Polypropylene) ☐ PE (Polyethylene)

injection port: ☐ Yes ☐ No

Size (inch)

| | 4 | 10 | 3T/14A | XLS |
|----------------|------|------|--------|------|
| A | 18 | 18,5 | 19 | 19 |
| B | 4 | 5,5 | 8 | 9,5 |
| C | 1,4 | 2,2 | 2,4 | 2,6 |
| D | 1,5 | 1,5 | 1,5 | 2,8 |
| D ₂ | 1,8 | 1,8 | 1,8 | 1,8 |
| E | 12,2 | 12,2 | 12,2 | 16,2 |

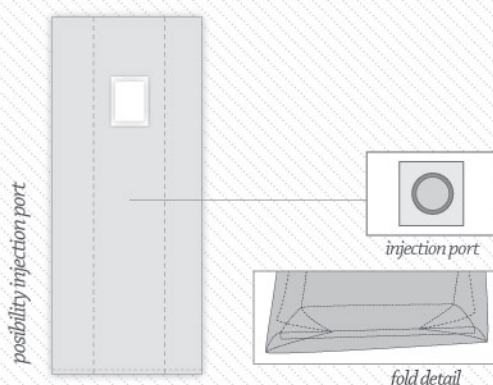


Size (cm)

| | 4 | 10 | 3T/14A | XLS | |
|-----|------|-----|--------|-----|----------------|
| 46 | 47 | 48 | 48 | 48 | A |
| 10 | 13,5 | 20 | 24 | 24 | B |
| 3,5 | 5,5 | 6 | 6,5 | 6,5 | C |
| 3,8 | 3,8 | 3,8 | 7 | 7 | D |
| 4,5 | 4,5 | 4,5 | 4,5 | 4,5 | D ₂ |
| 31 | 31 | 31 | 31 | 31 | E |

Bag type: 14A, 3T and 3B

! gusseted bags

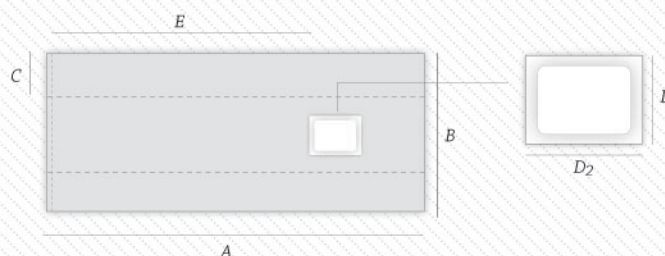


Technical specifications (inch / cm)

- size:** ☐ 19 x 8" / 48 x 20 cm
- filter:** • type: ☐ A (14A) ☐ B (3B) ☐ T (3T) ☐ TV
- filter location: ☐ out
- filter holes: ☐ L holes
- filter size: ☐ 1,5 x 1,75" / 3,8 x 4,5 cm
- material:** ☐ PP (Polypropylene) ☐ PE (Polyethylene)
- injection port:** ☐ Yes ☐ No

Size (inch)

| | 4 | 10 | 3T/14A | XLS |
|----------------|------|------|--------|------|
| A | 18 | 18,5 | 19 | 19 |
| B | 4 | 5,5 | 8 | 9,5 |
| C | 1,4 | 2,2 | 2,4 | 2,6 |
| D | 1,5 | 1,5 | 1,5 | 2,8 |
| D ₂ | 1,8 | 1,8 | 1,8 | 1,8 |
| E | 12,2 | 12,2 | 12,2 | 16,2 |

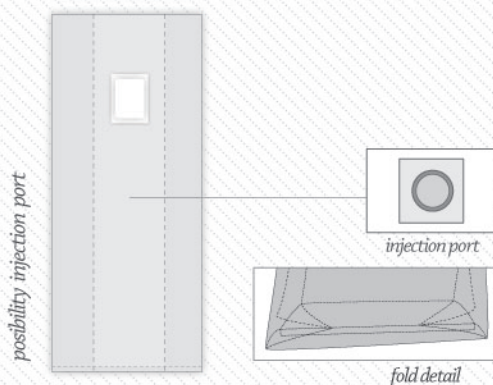


Size (cm)

| | 4 | 10 | 3T/14A | XLS | |
|-----|------|-----|--------|-----|----------------|
| 46 | 47 | 48 | 48 | | A |
| 10 | 13,5 | 20 | 24 | | B |
| 3,5 | 5,5 | 6 | 6,5 | | C |
| 3,8 | 3,8 | 3,8 | 7 | | D |
| 4,5 | 4,5 | 4,5 | 4,5 | | D ₂ |
| 31 | 31 | 31 | 31 | | E |

Bag type: XLS

! gusseted bags

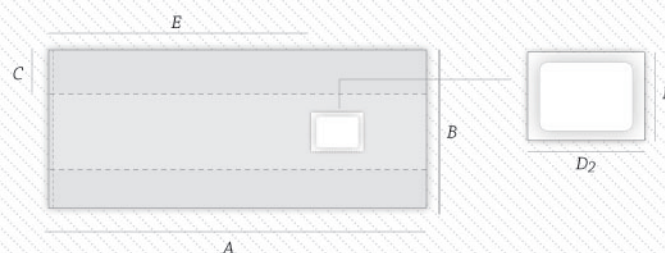


Technical specifications (inch / cm)

- size:** ☐ 19 x 9,5" / 48 x 24 cm
- filter:** • type: ☐ A ☐ B ☐ T ☐ TV
- filter location: ☐ out
- filter holes: ☐ L holes
- filter size: ☐ 2,7 x 1,75" / 3,8 x 4,5 cm
- material:** ☐ PP (Polypropylene) ☐ PE (Polyethylene)
- injection port:** ☐ Yes ☐ No

Size (inch)

| | 4 | 10 | 3T/14A | XLS |
|----------------|------|------|--------|------|
| A | 18 | 18,5 | 19 | 19 |
| B | 4 | 5,5 | 8 | 9,5 |
| C | 1,4 | 2,2 | 2,4 | 2,6 |
| D | 1,5 | 1,5 | 1,5 | 2,8 |
| D ₂ | 1,8 | 1,8 | 1,8 | 1,8 |
| E | 12,2 | 12,2 | 12,2 | 16,2 |



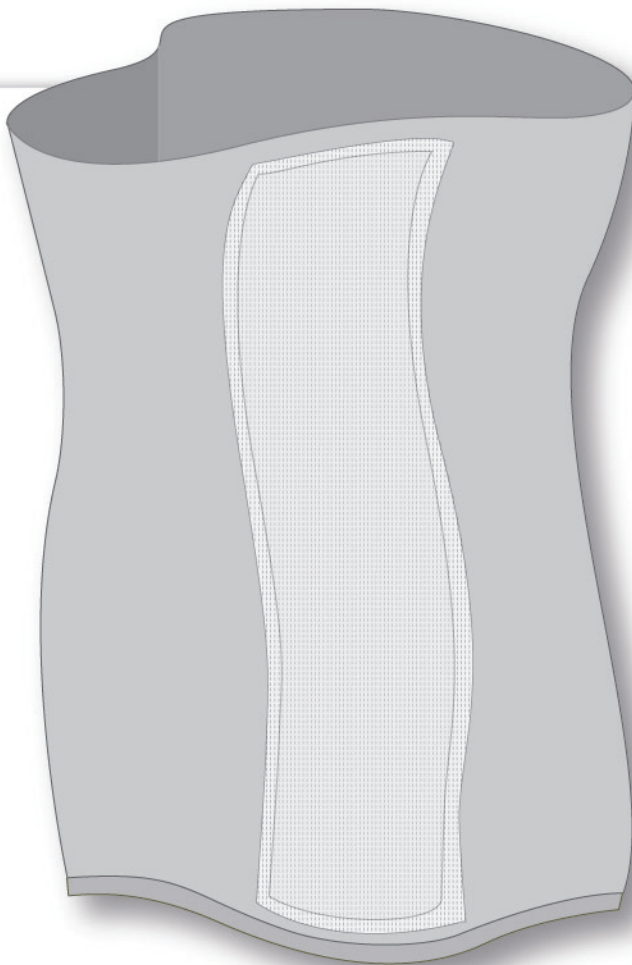
Size (cm)

| | 4 | 10 | 3T/14A | XLS | |
|-----|------|-----|--------|-----|----------------|
| 46 | 47 | 48 | 48 | | A |
| 10 | 13,5 | 20 | 24 | | B |
| 3,5 | 5,5 | 6 | 6,5 | | C |
| 3,8 | 3,8 | 3,8 | 7 | | D |
| 4,5 | 4,5 | 4,5 | 4,5 | | D ₂ |
| 31 | 31 | 31 | 31 | | E |

A highlight

Plastic bags designed for Bio-Control uses and Mushroom spawn production.

We manufacture our plastic materials and our filters.



PILLOW Bags

This bag is designed for bio-control uses and mushroom spawn production.

Polypropylene (PP) bags with different types of filter are widely used for spawn production.

Polyethylene (PE) bags with filters are used a lot in spawn production. As these bags cannot be sterilized by autoclave, this is done by irradiation.

More and more mushroom growers worldwide are using biological methods to control mushroom flies and insects.

Some of the fly control agents are fungus, and PP bags are generally used for their production. Some bio-control agents are nematodes. Both fungus and nematodes prefer a super high gas exchange filter to get maximum amounts of oxygen and reduce loss of humidity.

The bag is opened by hand or by automatic bag opening devices and the weighed substrate is inserted in the bag by funnel.

The PP bag is filled to about 50 or 60% of its volume. The top of the bag is folded down, and the bag is sterilized. After cooling, the bags are opened, preferably in a 'clean', filtered air stream, and the desired creatures are inserted to the bag. The bag is immediately sealed and shaken to mix the spawn with the substrate. The bags are now ready for incubation.

After inoculating the sterile substrate the Polyethylene bags are filled to 100% of their capacity.

Bag type: Unistrip 1

!pillow bags



bottom seal

Size (inch / cm)

important!

Filter:
single on double layer.
The lower layer next to
the substrate prevents
the filter to touch wet
substrate.



14" / 36 cm

24 / 18,5" // 61 / 47 cm

Technical specifications (inch / cm)



size:

- ☐ 24 x 14 " / 61 x 36 cm
- ☐ 18,5 x 14 " / 47 x 36 cm



filter:

- type: ☐ A ☐ B ☐ T ☐ TV
- filter location: ☐ in ☐ out
- filter holes: ☐ Pin holes ☐ L holes
- filter size: ☐ 2,5 inch / 6,3 cm wide



material:

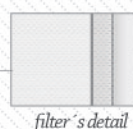
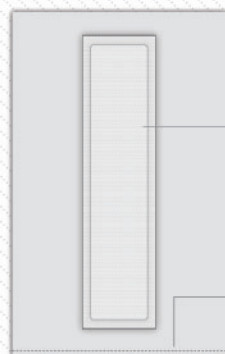
- ☐ PP (Polypropylene)
- ☐ PE (Polyethylene)

Available sizes:

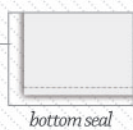
- ☐ 24 x 14 " / 61 x 36 cm
- ☐ 18,5 x 14 " / 47 x 36 cm
- ☐ Many custom sizes

Bag type: Unistrip 2

!pillow bags



filter's detail

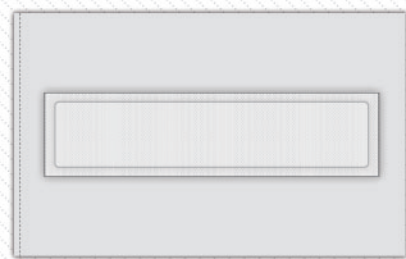


bottom seal

Size (inch / cm)

important!

Filter:
single on double layer.
The lower layer next to
the substrate prevents
the filter to touch wet
substrate.



14" / 36 cm

24 / 18,5" // 61 / 47 cm

Technical specifications (inch / cm)



size:

- ☐ 24 x 14 " / 61 x 36 cm
- ☐ 18,5 x 14 " / 47 x 36 cm



filter:

- type: ☐ A ☐ B ☐ T ☐ TV
- filter location: ☐ in ☐ out
- filter holes: ☐ Pin holes ☐ L holes
- filter size: ☐ 2,5 inch / 6,3 cm wide



material:

- ☐ PP (Polypropylene)
- ☐ PE (Polyethylene)

Available sizes:

- ☐ 24 x 14 " / 61 x 36 cm
- ☐ 18,5 x 14 " / 47 x 36 cm




Bag type: Unistrip 3

!pillow bags



Size (inch / cm)

Technical specifications (inch / cm)

-  size: ☐ 23,5 x 14 " / 60 x 35 cm
-  filter:
 - type: ☐ A ☐ B ☐ T ☐ TV
 - filter location: ☐ out
 - filter holes: ☐ L holes
 - filter size: ☐ 2,7 x 12 " / 7 x 30 cm
-  material: ☐ PP (Polypropylene) ☐ PE (Polyethylene)

important!
Filter:
8 inch / 20 cm below opening



23,5" / 60 cm

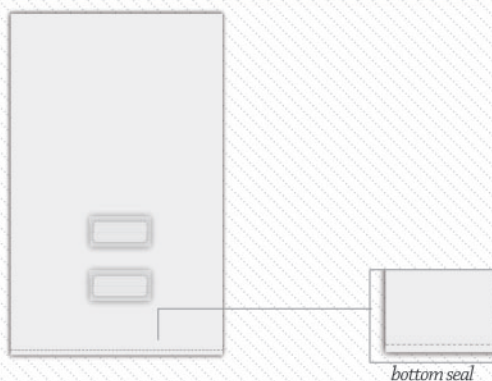
Available sizes:

- ☐ 23,5 x 14 " / 60 x 35 cm
- ☐ Many custom sizes

14" / 35cm




Bag type: Multistrip 7

!pillow bags



Size (inch)

Technical specifications (inch / cm)

-  size: ☐ 24 x 15 " / 61 x 36 cm
☐ 18,5 x 14 " / 47 x 36 cm
-  filter:
 - type: ☐ A ☐ B ☐ T ☐ TV
 - filter location: ☐ out
 - filter holes: ☐ L holes
 - filter size: 2 strips: 1 x 2,4 inch / 3 x 6 cm
-  material: ☐ PP (Polypropylene) ☐ PE (Polyethylene)



24 / 18,5" // 61 / 47 cm

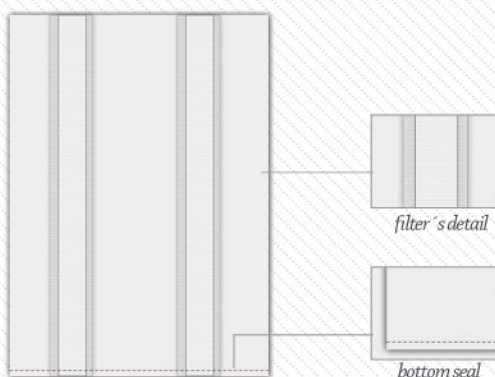
Available sizes:

- ☐ 24 x 15 " / 61 x 36 cm
- ☐ 18,5 x 14 " / 47 x 36 cm

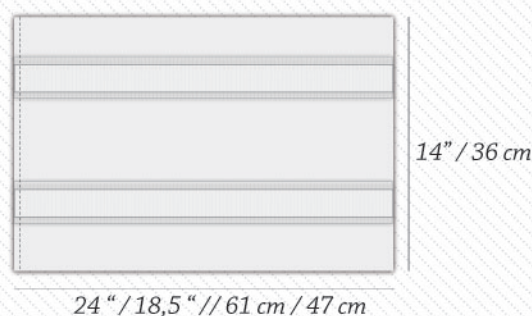
14" / 36 cm

Bag type: Multistrip 11



!pillow bags



Size (inch / cm)



Technical specifications (inch / cm)

-  size: ☐ 24 x 14" / 61 x 36 cm
☐ 18,5 x 14" / 47 x 36 cm
-  filter:
 - type: ☐ A ☐ B ☐ T ☐ TV
 - filter location: ☐ out
 - filter holes: ☐ Pin holes
 - filter size: ☐ 2 strips: 1 inch / 2 cm wide

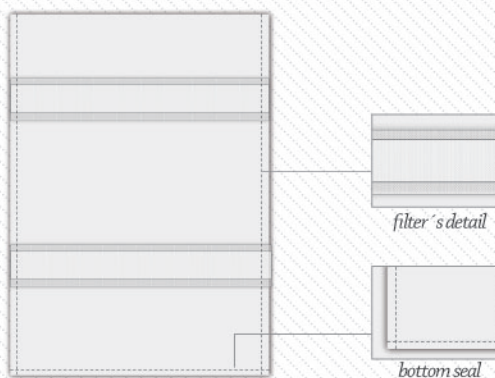
-  material: ☐ PP (Polypropylene) ☐ PE (Polyethylene)

Available sizes:

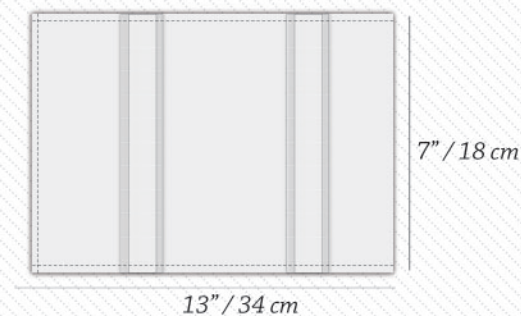
- ☐ 24 x 14" / 61 x 36 cm
- ☐ 18,5 x 14" / 47 x 36 cm

Bag type: Multistrip 12

!pillow bags



Size (inch / cm)



Technical specifications (inch / cm)

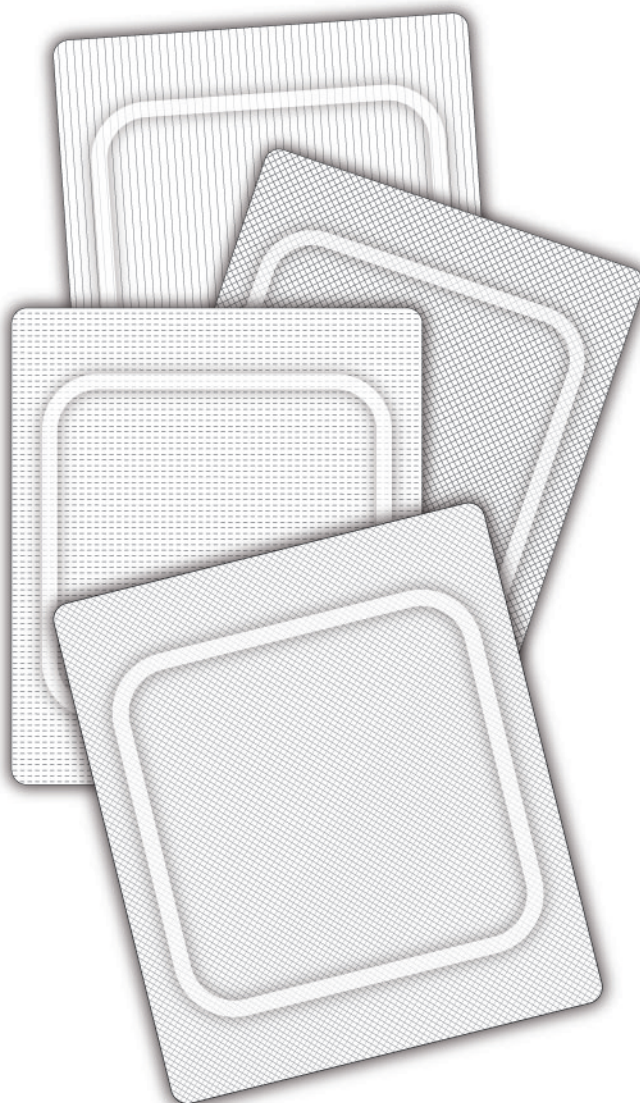
-  size: ☐ 13 x 7" / 34 x 18 cm
-  filter:
 - type: ☐ A ☐ B ☐ T ☐ TV
 - filter location: ☐ out
 - filter holes: ☐ Pin holes
 - filter size: ☐ 2 strips: 1 inch / 2cm wide

-  material: ☐ PP (Polypropylene) ☐ PE (Polyethylene)

Available sizes:

- ☐ 13 x 7" / 34 x 18 cm

We manufacture our plastic materials and our filters.



Filters

We manufacture several types of filters for our bags, depending on the amount of gas exchange required. The choice of filters depends on the application, and other variables. In other words, the amount of oxygen needed by the mycelium growing substrate, and when the oxygen is needed during the growing process defines the best filter requirement. The cultivation process of whether the sawdust block is browned inside or outside the bag helps determine what filter to use.

The first requirement for a filter is that it provides or maintains a clean atmosphere in the bag. An autoclave heat of 250-260 °F (121-126 °C) will reduce the pore size of some filter materials and enlarge it on some other types. Usually 10 - 50% pore size change can be expected. We have developed several types of filters that are not affected by sterilization heat. The second requirement for a filter is gas transmission. This requirement is influenced by the percentage of pores per given area. Due to manufacturing methods, some parts of the filter material may be dead space. This dead space is an area where no gas exchange occurs. This area is generally used to bond some filters layers.

Because some breathable membranes are very soft and fragile and are unsuitable for practical machining, therefore to support the membrane layer a second layer is laminated one way or another to the membrane to give the final filter material strength for machining. Filters are usually bonded onto bags by heat, which is generated by heating cartridges or by other means. We do not use adhesive. In order to achieve the maximum efficiency of a filter, we developed machinery that opens the largest hole possible whenever it is needed to expose the largest area of the filter for gas transmission

more information » unicornbags.com

Filter type: **A****Pore size**

0.5 microns

Technical description

Laminates of non woven polypropylene and polypropylene membrane.

Filter type: **B****Pore size**

5 microns

Technical description

Laminates of non woven polypropylene with PTFE. PTFE is a high temperature plastic material and can be produced in thin membrane form with micro sized holes. These processes have been well documented in numerous patents since the 1970's. By laminating with non woven polypropylene this laminate can thus be heat sealed onto PP bags. Normal sterilizing heat will not reduce or increase the pore size because the controlled pore is on the PTFE. Can be sealed before autoclaving.

Filter type: **T****Pore size**

High efficiency pore size 0.2 microns.

Technical description

Laminates of non woven polypropylene with PTFE (as filter type B). This laminate is the most suitable use for spawn production.

Filter type: TV



Pore size

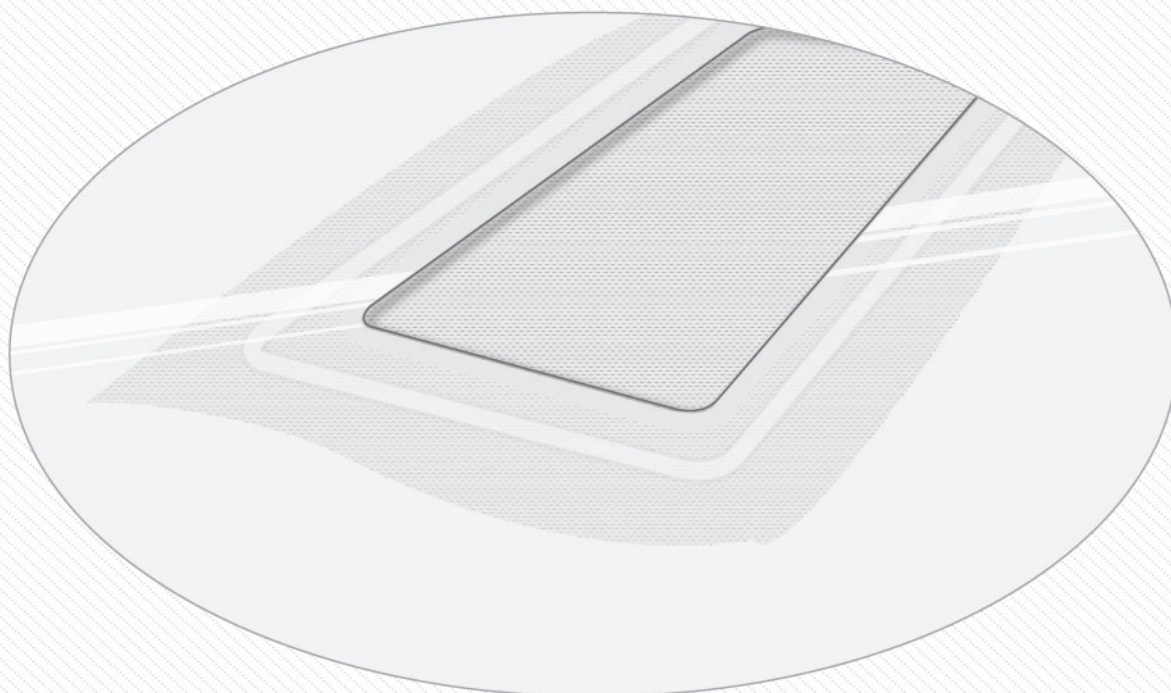
0.2 microns

Technical description

Laminates of non woven polyethylene. Tyvek is manufactured with HDPE, and therefore does not withstand high sterilizing temperatures. Users usually reduce the sterilization temperature and increase time to achieve on acceptable sterilization. Usually PE bags use Tyvek as filter material, as HDPE material can easily be heat sealed on PE bags.

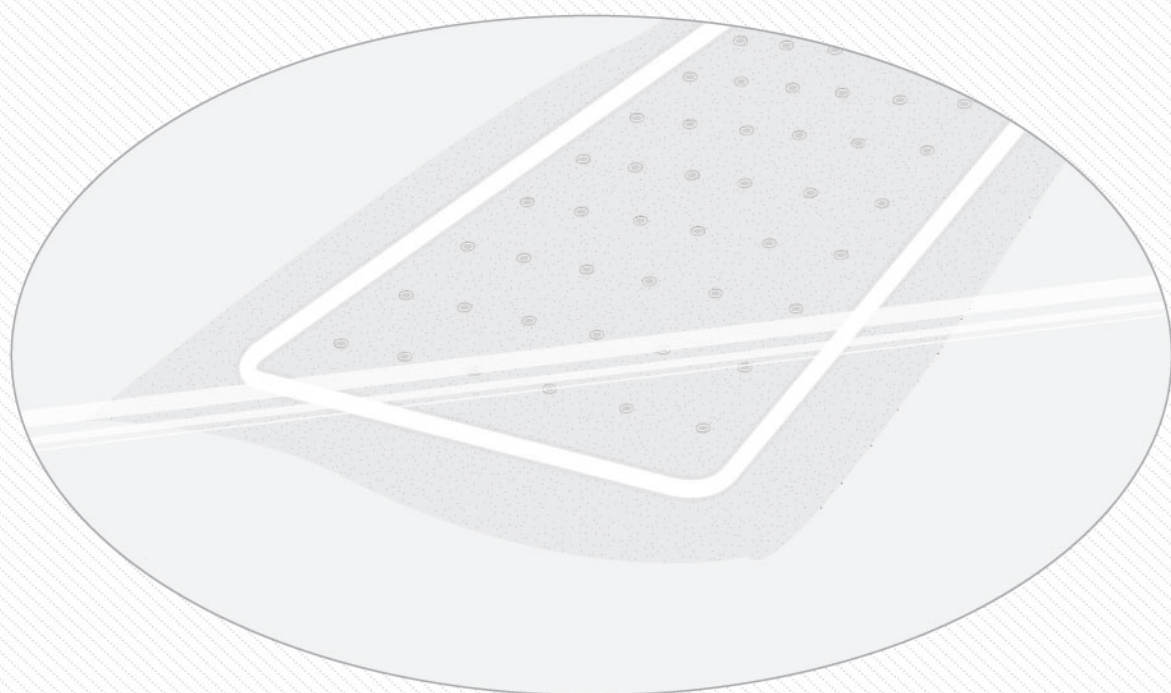
Hole type: L Holes

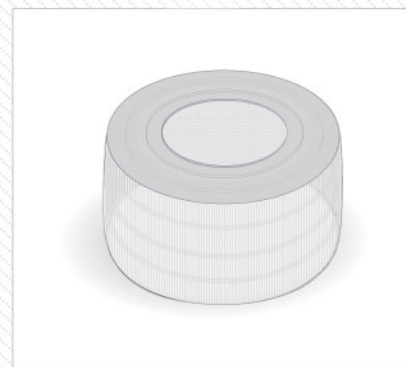
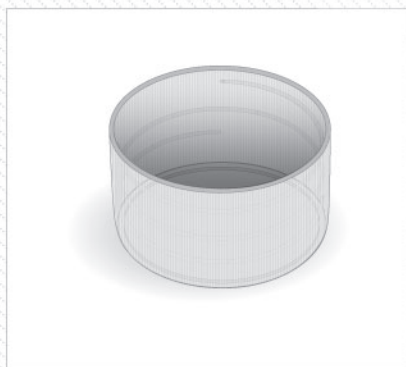
!holes



Hole type: Pin Holes

!holes



Others products: **Test Tubes****!Test Tubes****Technical description (Inch / cm)**

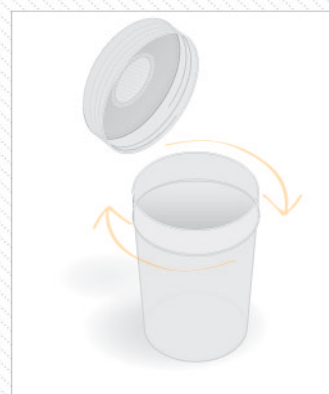
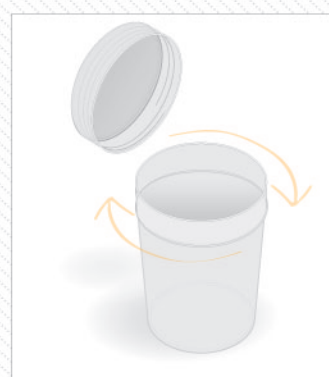
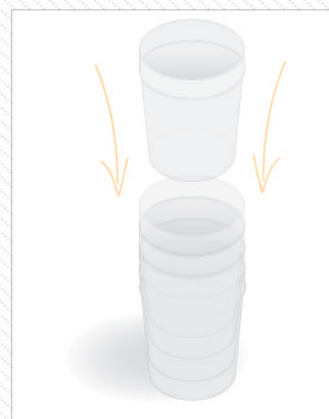
Polypropylene test tube with micro-filtered cap suitable for shipment of TC specimens (spawn and tissue culture). Micro-filter optional in cap. You can order cap with or without micro-filter.



size: • top diameter: □ Ø 0,9" / Ø 2,3 cm
 • bottom diameter: □ Ø 0,8" / Ø 2 cm
 • height: □ 4" / 10 cm



capacity: □ 35 ml

Others products: **Container 1****!** Container 1**Technical description (Inch / cm)**

Polypropylene containers with micro-filtered cap suitable for shipment of TC specimens (spawn and tissue culture). Micro-filter optional in cap. You can order cap with or without micro-filter.



size: • top diameter: □ Ø 2,2" / Ø 5,5 cm
• bottom diameter: □ Ø 2" / Ø 5 cm
• height: □ 2,7" / 7 cm



capacity: □ 150 ml

Others products: **Container 2****!** Container 2**Technical description (Inch / cm)**

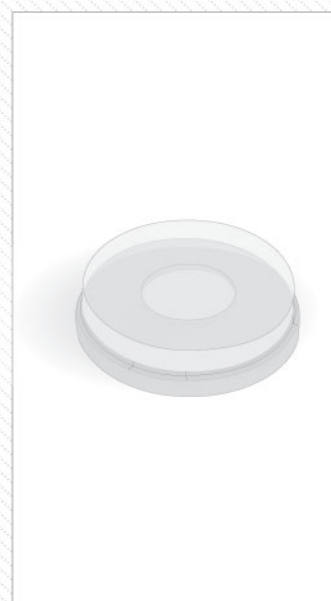
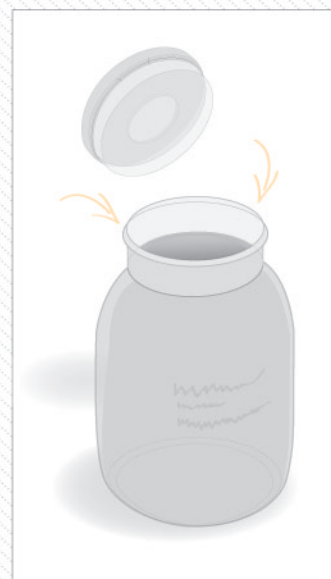
Polypropylene container with micro-filtered cap suitable for shipment of TC specimens (spawn and tissue culture). Micro-filter optional in cap. You can order cap with or without micro-filter.



- size: • top diameter: □ Ø 3,9" / Ø 9,8 cm
 • bottom diameter: □ Ø 3,3" / Ø 8,5 cm
 • height: □ 3,1" / 8 cm



capacity: □ 475 ml

Others products: **Bottle****Technical description (Inch / cm)**

Polypropylene bottle with micro-filtered cap suitable for shipment of TC specimens (spawn and tissue culture). Micro-filter optional in cap. You can order cap with or without micro-filter.



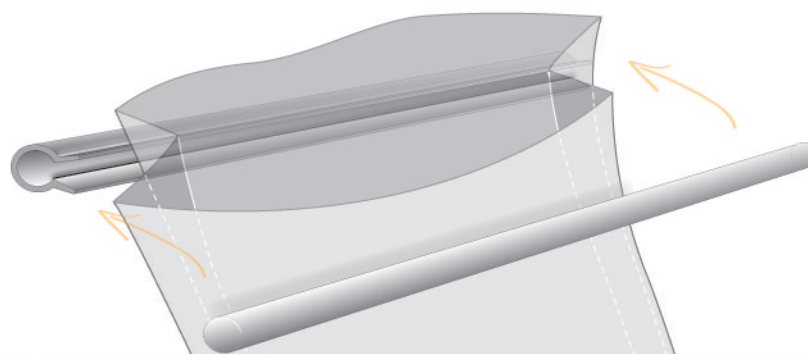
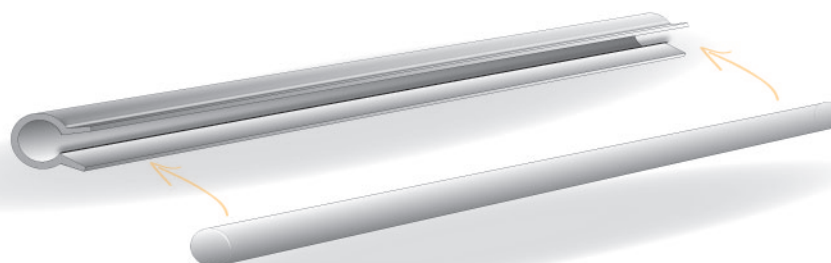
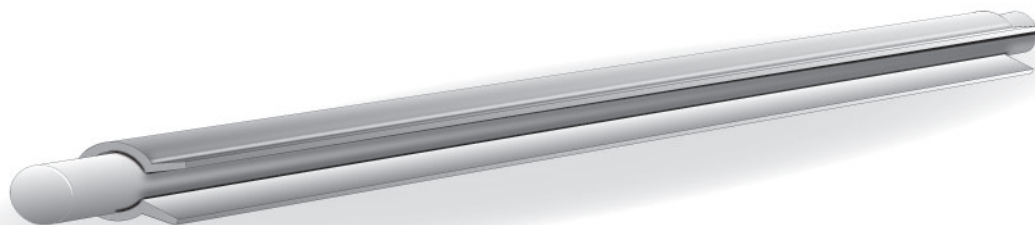
size: •top diameter: □ Ø 2,6" / Ø 6,5 cm
 •bottom diameter: □ Ø 3,5" / Ø 9 cm
 •height: □ 6,3" / 16 cm



capacity: □ 1050 ml

Others products: Bag Clamp

! Bag Clamp



Technical description (Patent, and trade mark applied for)

- This bag clamp hermetically seals the opening of a bag and eliminates sealing machine and all its problems.
- Reusable, autoclavable, no hassle simple design and simple to use. Allow easy spawning after autoclaving and cooling.
- Allows easy verification of internal CO₂ content of bag without cutting and resealing.
- Allowing things you always wanted to do that you could not do when the bags are heat sealed.



more information » unicornbag.com
