

GRAINPRO® COCOON INDOOR™

INSTRUCTION MANUAL

MA4044RAD1114-11



GP
GRAINPRO
STORING THE FUTURE



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1. INTRODUCTION

The GrainPro® Cocoon Indoor™ is an effective, low-cost version of the Cocoon. It is made of hermetic and lightweight Polyethylene materials designed to preserve and protect dry agricultural commodities stored indoors. It comes in various sizes and can be customized to store different capacities of commodities in bags or boxes effectively. The gas-tight Cocoon Indoor™ is also ideal for CO₂ fumigation to exterminate any insects in the commodity immediately. The carbon dioxide can be flushed through the inlet port at the base of the Cocoon Indoor™, and excess air can be released through the zipper at the top.

1.1. FEATURES:




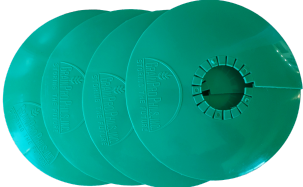

- 1.1.1. Easy to use.
- 1.1.2. Ideal fumigation chamber for infested crops.
- 1.1.3. Preserve the quality (aroma, freshness, color, etc.) of the stored products.
- 1.1.4. Fit for organic fumigation using CO₂.
- 1.1.5. Ensures safe storage of goods inside the warehouse.
- 1.1.6. Applicable for commodities in Big Bags and smaller bags, with or without pallets.
- 1.1.7. Minimizes condensation and inhibits or controls both mold growth and infestation.

1.2. PRODUCT GUARANTEE:

- 1.2.1. In accordance with the terms and conditions herewith, GrainPro® Inc. guarantees the quality of this product per its written warranty provided it is used according to the instructions in this manual.
- 1.2.2. Please read and understand the manual thoroughly before using the Cocoon Indoor™.

2. CHECKLIST

Please inspect your GrainPro® Cocoon Indoor™ package to ensure it includes the following items:

PART NAME	IMAGE
<p>2.1. Cocoon Indoor™ Body.</p> <p>a. High-strength PE with barrier layer.</p>	
<p>2.2. Zipper slider.</p> <p>a. For zipper sealing, two (2) pieces.</p>	
<p>2.3. Crocodile Adhesive 2" Tape.</p> <p>a. Repair Tape, One (1) piece.</p>	
<p>2.4. Rodent Guard.</p> <p>a. For platform posts to prevent rodent access when safekeeping the empty Cocoon Indoor™. Four (4) pieces per pack.</p> <p>NOTE: For 1.15 cbm Cocoon Indoor™, a rodent guard is not included in the package.</p>	
<p>2.5. Instruction Manual.</p> <p>a. Installation Instructions.</p> <p>b. Maintenance Instructions.</p> <p>c. Frequently Asked Questions.</p> <p>d. Warranty Clause.</p>	

3. COMPONENTS



4. SPECIFICATIONS

Parameters	Standard
Material	High Strength PE with Barrier Layer
Thickness, microns	100±5%
Color	Green (Pantone 3385)
Material weight, g/m ²	97.5
Oxygen Transmission Rate (OTR), cc/m ² /day @ 23± 0.5°C, RH = 0%	≤9
Water Vapor Transmission Rate (WVTR), g/m ² /day	<4
Product life, years	2
Warranty, years	1
Sealing mechanism	2-Track PE Zipper
Capacity	Customizable
Dimension	Customizable

5. WARNING!

- 5.1. Do not load fresh produce or commodities with high moisture inside Cocoon Indoor™.
- 5.2. Do not wear shoes with spikes as this might damage the liner.
- 5.3. Do not directly install the Cocoon Indoor™ on top of a wooden pallet or equivalent without putting a mat or thick cardboard to prevent punctures by sharp edges and nails.
- 5.4. Do not smoke during installation, cigarette butts might burn and damage the liner.
- 5.5. Do not allow loading vehicles (e.g., forklifts/pallet trucks) to maneuver inside the Cocoon Indoor™, as this could damage the liner and other components.
- 5.6. Do not place heavy objects on the liner to prevent zipper deformation.
- 5.7. Do not use pliers or any tools that could break the transparent plug. Excessive force applied could cause breakage. Use an adjustable wrench or equivalent fitted to the transparent plug.
- 5.8. Do not keep the Cocoon Indoor™ without cleaning.

6. Recommended maximum moisture content for safe storage (wet basis)

Commodity	Recommended MC
Barley	12%
Black pepper	10%
Cashew nuts	8%
Chia seeds	7%
Chickpeas	12%
Cocoa beans	7%
Coffee beans	12%
Cotton seed	10%
Cowpea	12%
Maize	13.5%
Millet	12%
Mung bean	12%
Oats	12%
Paddy	13.5%
Paddy, rice bran	11%
Peanuts shelled	7%
Rec chili pepper	8-10%
Milled rice	12%
Rye	12%
Sesame	5.5%
Sorghum	12%
Soybean	12%
Sunflower	7%
Wheat	13%

You may also contact us through customercare@grainpro.com for more information or for commodities that are not on the list.

7. INSTALLATION

7.1. PREPARATION

7.1.1. Ensure that the warehouse floor is free of any sharp or pointed objects that may damage the liner.



7.1.2. For additional protection, place a mat or thick cardboard on the floor where the Cocoon Indoor™ will be set.



7.1.3. Carefully open the package and unfold the Cocoon Indoor™ on the prepared site.



7.1.4. Roll the sides of the liner to prevent damage during loading when using the forklift.



7.1.5. Place another layer of a mat or cardboard inside the liner to protect it during loading.

NOTE: Before placing an additional protection on top of the liner. Make sure the bottom is stretched by pulling the corners.



7.2. LOADING

7.2.1. Check the moisture content (MC) of the commodity to ensure it is at a safe level.



7.2.2. Start loading.

- a. Manually place the load as close as possible to maximize load capacity. (Stacks can be stored either as bagged items or on a pallet.)



- b. If using a forklift, place the load as close as possible to maximize load capacity. (Stacks can be stored either as bagged or palletized goods).



7.2.3. Ensure that the stack height is not greater than the permissible stacking height of the Cocoon Indoor™.

NOTE: The use of pallets is optional.



7.3. SEALING

7.3.1. Unroll the sides of the Cocoon Indoor™ upward to cover the stack.



7.3.2. Pull the ends of the Cocoon Indoor™ zipper track together for sealing.



7.3.3. Positioning of the zipper slider:

- Manually zip a few centimeters on the PE zipper track enough to initially engage the zipper slider.
- Insert and position the zipper slider on the sealed zipper track.



7.3.4. Two people are required to seal the zipper of the Cocoon Indoor™.

- a. One will do the sealing, and the other will hold the other end steadily, positioning both sections of the zipper in a straight line to avoid the zipper length misalignment.
- b. Moving the zipper slider while the zipper track is curved will force one of the zipper track sections to elongate.
- c. If uneven zipper ends are observed, both ends of the zipper should be slightly stretched, and start the sealing from end to end.



7.3.5. Fold the extra liner and secure it using adhesive tape.



7.3.6. Make sure that there will be no folds or slacks along the Cocoon Indoor™.



7.4. PRESSURE DECAY TEST (PDT)

7.4.1. After completely sealing the zipper and closing all the ports of the zCocoon Indoor™, perform a pressure (vacuum) decay test (PDT) to ensure gas tightness.

a. Use a digital manometer.



b. Use an improvised U-tube manometer.



7.4.2. Connect the manometer house to the flexible inlet port of the liner.



7.4.3. Use a vacuum pump at least 2.3 cubic meters per minute with a 600-watt (0.80 horsepower) centrifugal pump:

- Connect the vacuum pump hose to the G-HF port of the Cocoon Indoor.
- Create at least 250 Pascal's (25 millimeters of water mm H₂O) vacuum pressure. Doing this can also help engage the zipper tracks properly, as there may be imperfections during sealing.



- c. For a sufficiently airtight set-up, the final pressure should not be greater than one-half ($\frac{1}{2}$) of the initial pressure (created by the vacuum pump) within five (5) minutes.
- d. If the PDT test fails, check for holes/tears or poorly sealed zippers, then repeat the PDT procedures.



7.5. PROCEDURE FOR PURGING WITH DIOXIDE FLUSHING (CO_2)

7.5.1. Calculation:

- Total volume - the volume occupied by the commodity.
- For every 2.0 kg of CO_2 , 1 cubic meter of gas is released.
- Formula: $(1 - \text{bulk density of commodities}) \times \text{volume of cocoon (m}^3) \times 2$

7.5.2. Example calculation of carbon dioxide dosage for flushing, kg:

- 10 MT Cocoon IndoorTM filled with a bagged of wheat, which is approximately 15 m^3 .
- CO_2 dosage for wheat = $(1 - \text{wheat bulk density}) \times \text{volume (m}^3) \times 2$
- Carbon dioxide needed = $(1 - 0.77) \times 15 \times 2 = \mathbf{6.9 \text{ kg of CO}_2}$.

7.5.3. Carbon dioxide dosage in kg per cbm (m^3).

Commodities	Bulk Density, MT/m^3	Capacity				
		7.00	8.00	13.0	50.0	100
Barley	0.62	2.66	3.04	4.94	19.0	38.0
Chia seeds	0.50	3.50	4.00	6.50	25.0	50.0
Cashew nuts	0.68	2.24	2.56	4.16	16.0	32.0
Chickpeas	0.74	1.82	2.08	3.38	13.0	26.0
Cocoa beans	0.56	3.08	3.52	5.72	22.0	44.0
Coffee beans	0.59	2.87	3.28	5.33	20.5	41.0
Cotton seeds	0.40	4.20	4.80	7.80	30.0	60.0
Cowpea	0.75	1.75	2.00	3.25	12.5	25.0
Maize	0.72	1.96	2.24	3.64	14.0	28.0
Millet	0.63	2.59	2.96	4.81	18.5	37.0
Mung bean	0.75	1.75	2.00	3.25	12.5	25.0
Oat	0.43	3.99	4.56	7.41	28.5	57.0
Paddy	0.60	2.80	3.20	5.20	20.0	40.0
Paddy rice bran	0.55	3.15	3.60	5.85	22.5	45.0
Peanuts shelled	0.64	2.52	2.88	4.68	18.0	36.0
Milled rice	0.80	1.40	1.60	2.60	10.0	20.0
Rye	0.72	1.93	2.24	3.64	14.0	28.0
Sesame	0.59	2.87	3.28	5.33	20.5	41.0
Sorghum	0.72	1.96	2.24	3.64	14.0	28.0

Soybean	0.75	1.75	2.00	3.25	12.5	25.0
Sunflower	0.41	4.13	4.72	7.67	29.5	59.0
Wheat	0.77	1.61	1.84	2.99	11.5	23.0

7.5.4. Carbon dioxide application:

- a. Make sure that enough carbon dioxide is available on-site and that a proper pressure hose with threaded ends is on hand (pressure kit). The weight of the carbon dioxide cylinder is supplied by the industrial companies (i.e., 22 kg standard capacities, which may be used to calculate the number of cylinders required). Carbon dioxide cylinders are available with or without a siphon (dip tube).

- b. For rapid flushing, the cylinder should be inverted using a mechanical inverter. However, the cylinders with a siphon should be in an upright position during flushing.



- c. If a mechanical inverter is not available, a makeshift inverter can be made using sandbags or other improvised techniques. The cylinder should be inverted with its top resting on one sandbag and the bottom end resting on a pile of two or three sandbags high.

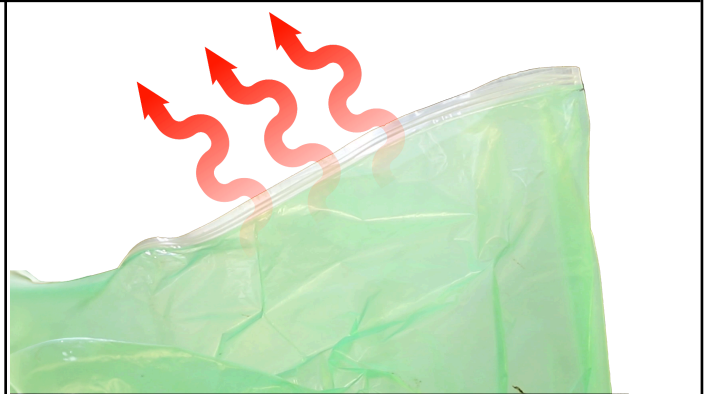
- d. A standard high-pressure hose (optional; available from GrainPro) should be connected to the cylinder. This hose should be guaranteed to withstand a pressure of 88 atmospheres (1,300 psi, or 92 kg/cm²). Ensure that all connections are made properly and gaskets are in place where they are required. The high-pressure hose should have a length of about 2 meters.



- e. To open the transparent flange or the inlet port cap, use only an adjustable wrench or any equivalent fitted in the cap. Too much grip or force applied could cause breakage.



- f. Open a section of the zipper (10-15 cm) to serve as an outlet when flushing the Cocoon Indoor™ with CO₂.



- g. Open the cylinder valve. Adjust the opening of the valve until the sound of liquid passing through the hose is observed. The liquid CO₂ flushes into the Cocoon Indoor™ and will push the air upward starting from the bottom, following the piston effect, until the air is replaced. The opening through the zipper will serve as an outlet for the displaced air.



7.5.5. Ice formation on the pressurized hose and pipe connector during CO₂ flushing:

- a. During this procedure, some ice may form around the gas inlet port and high-pressure hose.

NOTE: Do not use a pressure reducer to reduce air/CO₂ mixing.



- b. Flushing (emptying of the cylinder) depends on the amount of CO₂ to be applied. Emptying a 22-kg cylinder should only take about 20 to 30 minutes. If the pressure hose or the inlet valve gets blocked with ice, this is an indication

that the CO₂ is being released too quickly. If this happens, the cylinder should be closed until the ice melts, and then the cylinder tap should be re-opened and adjusted to reduce the flow.

- c. An additional indication that the gas is being released too quickly is when the Cocoon Indoor™ begins to balloon out because pressure begins to build up inside. If this happens, the gas flow should be decreased at the cylinder tap until the rate of air expelled through an open zipper section is about the same as the rate of CO₂ entering the liner.
- d. If necessary, for small-scale applications, the cylinder is not inverted, and weighing scales may be used to control the weight of the gas delivered. In this case, the gas is released slowly through a pressure gauge, which can be adjusted to control the flow rate.

7.5.6. Since CO₂ is heavier than air, the air inside will be displaced upwards and lifted out of the container through an open section of the zipper. Complete displacement is not possible as there is always some mixing at the interface between the air and the CO₂. However, if the final CO₂ concentration reaches 80%, then the O₂ concentration in the remaining air amounts to 4%, leaving 16% nitrogen. This mixing of the CO₂ with the remaining air and absorption of CO₂ by the commodity will take 12-24 hours, depending on the temperature. This will also be the time to determine the initial concentration of CO₂.

- 7.5.7. After the required dosage of CO₂ has been flushed, immediately:
- a. Close the CO₂ cylinder valve.



- 7.5.8. Close the open zipper section thoroughly, using the slider when air has been displaced.



7.5.9. For controlling insects, maintaining CO₂ above 50% for 10 days or CO₂ above 35% for 15 days is sufficient to provide complete control, after which the liner may be opened. In addition, temperature accelerates treatment. Effective insect control may be achieved in three days at 25° and less at higher temperatures.

7.5.10. Although CO₂ is not toxic, it is an asphyxiant. It is advisable to unzip the Cocoon Indoor™ and wait until most of the CO₂ has dispersed.

7.5.11. Recommended pest reduction timeline:

- a. Leave the Cocoon Indoor™ closed for two weeks at a minimum of 35% CO₂ (13% O₂) concentration at 25 °C or higher to eliminate insects in all stages and achieve the best results.
- b. When storing commodities, leave the Cocoon Indoor™ sealed until it is unloaded completely.

7.5.12. Succeeding monitoring should be done twice a week. Without CO₂ flushing, oxygen levels should drop 1 - 2% per day to a level less than 3% (though lower levels have been observed as well). Oxygen levels gradually go up by a few percent but must not exceed 7%, sealing is probably compromised, and the commodity may not be adequately protected.



7.5.13. When carrying out a CO₂ treatment, the approximate CO₂ concentrations can be determined by measuring O₂ concentrations using the conversion table below:

O ₂	CO ₂	O ₂	CO ₂	O ₂	CO ₂	O ₂	CO ₂	O ₂	CO ₂	O ₂	CO ₂	O ₂	CO ₂
0.0	100	3.0	85.7	6.0	71.3	9.0	56.9	12.0	42.6	15.0	28.3	18.0	13.9
0.2	99.0	3.2	84.7	6.2	70.3	9.2	56.0	12.2	41.6	15.2	27.3	18.2	12.9
0.4	98.1	3.4	83.7	6.4	69.4	9.4	55.0	12.4	40.7	15.4	26.3	18.4	12.0
0.6	97.1	3.6	82.8	6.6	68.4	9.6	54.1	12.6	39.7	15.6	25.4	18.6	11.0
0.8	96.2	3.8	81.8	6.8	67.5	9.8	53.1	12.8	38.8	15.8	24.4	18.8	10.1
1.0	95.2	4.0	80.9	7.0	66.5	10.0	52.2	13.0	37.8	16.0	23.4	19.0	9.1
1.2	94.3	4.2	79.9	7.2	65.6	10.2	51.2	13.2	36.8	16.2	22.5	19.2	8.1
1.4	93.3	4.4	79.0	7.4	64.6	10.4	50.2	13.4	35.9	16.4	21.5	19.4	7.2
1.6	92.3	4.6	78.0	7.6	63.6	10.6	49.3	13.6	34.9	16.6	20.6	19.6	6.2
1.8	91.4	4.8	77.0	7.8	62.7	10.8	48.3	13.8	34.0	16.8	19.6	19.8	5.3
2.0	90.4	5.0	76.1	8.0	61.7	11.0	47.4	14.0	33.0	17.0	18.7	20.0	4.3
2.2	89.5	5.2	75.1	8.2	60.8	11.2	46.4	14.2	32.1	17.2	17.7	20.2	3.4
2.4	88.5	5.4	74.2	8.4	59.8	11.4	45.5	14.4	31.1	17.4	16.8	20.4	2.4
2.6	87.6	5.6	73.2	8.6	58.9	11.6	44.5	14.6	30.1	17.6	15.8	20.6	1.4
2.8	86.6	5.8	72.3	8.8	57.9	11.8	43.5	14.8	29.2	17.8	14.8	20.8	0.5

8. MONITORING

8.1. WITH CO₂ FLUSHING - MONITORING USING AN OXYGEN ANALYZER.

8.1.1. Recommended pest reduction timeline:

- a. Leave the Cocoon Indoor™ closed for 15 days at 35% CO₂ or 15% O₂ concentration (minimum) or 50% CO₂ for 10 days to eliminate all life stages of insects and achieve the best results.
- b. When storing commodities, leave the Cocoon Indoor™ sealed until it is unloaded completely.

- 8.1.2. Using the oxygen analyzer:
- During the first 15 days of installation, oxygen levels should be checked daily.



- Succeeding monitoring should be done twice a week. Oxygen levels may increase but must not be more than 15%. Check for any source of leak or damage. Sealing is probably compromised, and the commodity may not be adequately protected.



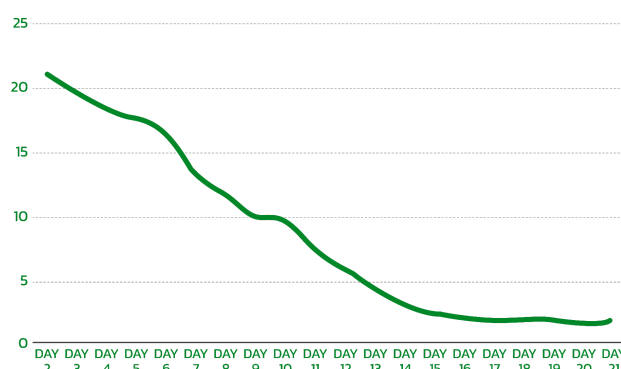
8.1.3. When carrying out a CO₂ treatment, the approximate CO₂ concentrations can be determined by measuring the O₂ concentration using the oxygen analyzer.

8.2. WITHOUT CO₂ FLUSHING - MONITORING USING AN OXYGEN ANALYZER.

8.2.1. Recommended pest reduction timeline:

- Normally, oxygen levels should drop 1 - 2% per day to an O₂ level of less than 3%. To eliminate all life stages of insects and achieve the best results, less than 3% oxygen concentration should be maintained for 21 days.
- When storing commodities, leave the Cocoon™ sealed until it is unloaded completely.

8.2.2. When the oxygen does not drop for 3 to 7 days, check for pinholes or damage in the liner.



8.3. USING GRAINPRO® ECOWISE™ FOR WIRELESS MONITORING.

The GrainPro® Ecowise™ is a wireless sensing system designed to remotely monitor the environment within a hermetic storage unit in real time. The sensor collects and sends out data such as relative humidity (%RH), temperature(°C), and CO₂ levels (%) to a receiver that is connected to a tablet via Bluetooth. The software transmits the information via the internet to designated users who can monitor the

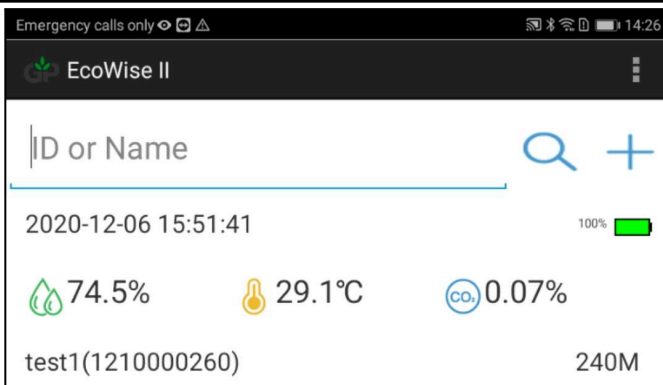
data on their computers or smartphones.



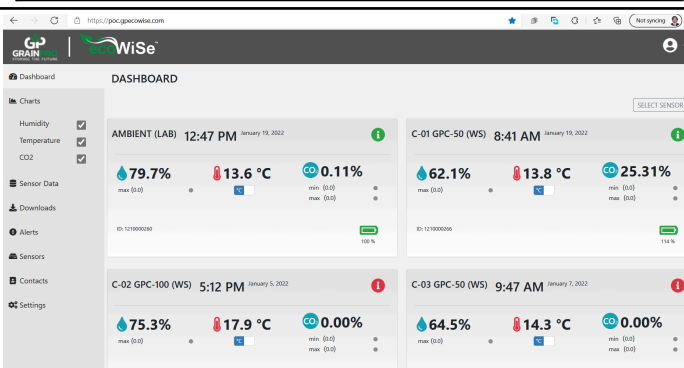
8.3.1. The Ecowise sensor is placed inside the Cocoon Indoor™ to collect and send out data such as relative humidity (%RH), temperature (°C), and CO₂ levels (%).



8.3.2. The Ecowise tablet receives data from the receiver, and the Ecowise app sends the data to the web app. On how to install and connect the Ecowise™ set, an instruction manual is provided in the package.



8.3.3. The data can be accessed in real-time wherever you are, using your smartphone or computer by logging in to the web app: <https://poc.gpecowise.com/>



8.4. DISMANTLING

Although carbon dioxide is not toxic, it is an asphyxiant gas and it is advisable to open the zipper of the Cocoon Indoor™ and wait until most of the carbon dioxide has dispersed.

- 8.4.1. Though the Cocoon Indoor™ may be progressively filled over several days as the commodity is harvested and provided, they have the same moisture content, it is not recommended to top-up a Cocoon Indoor™ that is still partially filled from the previous harvest, with a commodity brought in from the new harvest. This is because when the new commodity is tapped from the top, the old commodity from the previous harvest is left at the bottom.

9. MAINTENANCE AND CARE

9.1. REPAIR PUNCTURES AND OTHER DAMAGES

- 9.1.1. Use the 2" wide plastic tape to patch the damaged liner of the Cocoon Indoor™.
- Clean the surface of the damaged area with a damp cloth and allow the surface to dry before applying the plastic tape.
 - Cut out a piece of tape long enough to cover the damaged area (outside surface) of the liner.



- 9.1.2. Protective maintenance:

- Check the plastic tape occasionally and replace or re-patch if necessary.


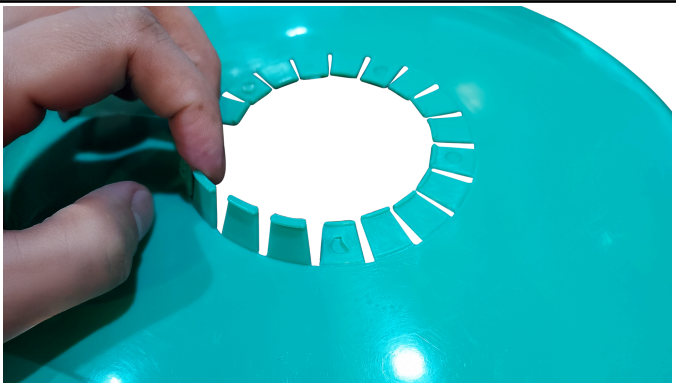
9.2. CLEANING

The Cocoon Indoor™ is reusable for up to two (2) years as long as the PE material is undamaged.

- 9.2.1. Ensure that all stored commodities are removed.
- 9.2.2. Check for any leftover grains, dust, or debris inside the Cocoon Indoor™.
- 9.2.3. Check for any tears, holes, or weakened seams that may compromise the Cocoon's effectiveness. Repair as necessary using the appropriate GrainPro® repair kit.
- 9.2.4. Clean the Cocoon Indoor™ using a dry or damp cloth.



9.3. SAFEKEEPING	
9.3.1. Once clean and clear of dust, fold it neatly to avoid creases that may weaken the material over time.	
9.3.2. Place the Cocoon Indoor™ in dry, cool storage, free from pests and humidity, until the next use. To prevent rodent attack	

9.4. PLATFORM INSTALLATION OF RODENT GUARD (RG).	
<p>9.4.1. For protection against rodent attacks (one set contains 4 pieces of rodent guard).</p> <ol style="list-style-type: none"> One set can be installed on any platform legs with a leg perimeter (round or square) of 22 cm (9") to 44 cm (17"). If the leg area is smaller, the rodent guard can be optionally cut in half to fit. Cut along the lines at the back of the rodent guard. 	
9.4.2. Fold the rodent guard's teeth upwards against the sides of the leg to keep it from slipping.	

9.4.3. Make sure to overlap the sides at least one inch.



9.4.4. Lock the overlap using staple wire, cable wire, or any fastener. A user guide is included in the rodent guard sets for the complete installation procedure.

9.5. RECYCLING

GrainPro® Cocoon Indoor™ material is made of LDPE.

9.5.1. The products can be delivered to the nearest recycling facilities in the area.

9.5.2. Plastic #4 - LDPE (Low-Density Polyethylene) can be recycled into compost bins, paneling, trash can liners, and shipping envelopes.

9.5.3. Where to dispose of your used GrainPro Cocoon Indoor™?

- a. In Malaysia, Grainpro® partnered with Gargeon to collect and recycle used hermetic liners. To connect with them, visit their website at www.gargeon.com.
- b. For the US or EU, Hermetic liners may be sent to the GrainPro® and Neumann Recycling Project. Email us at sustainability@grainpro.com for more information.

10. FREQUENTLY ASKED QUESTIONS

10.1. WHAT IS COCOON INDOOR™?

- The Cocoon Indoor™ is a low-cost Hermetic storage solution for indoor use only. With care, it can be used multiple times.

10.2. WHAT COMMODITIES CAN I STORE IN IT?

- The Cocoon Indoor™ is used to store a wide variety of dry commodities such as maize, soybean, wheat, cassava, and rice paddy in boxes or bags. It also preserves spices, coffee, and different seeds.

10.3. HOW LONG CAN IT PRESERVE COMMODITIES?

- Typically for more than six (6) months.

10.4. DOES IT HELP IMPROVE SEED GERMINATION?

- The Cocoon Indoor™ does not improve seed germination but maintains it with very little change.

10.5. CAN I STORE LOOSE COMMODITIES?

- No, it is designed to hold commodities loaded in boxes, bags, big bags, or bins.

10.6. HOW DOES THE COCOON INDOOR™ KILL PESTS EMBED IN THE COMMODITIES?

- It is a gastight container that relies on the respiration of insects, commodities, and microflora, which depletes the available oxygen and increases the level of carbon dioxide inside the storage. This, in turn, eliminates insects, including eggs, larvae, pupae, and adults.

10.7. DOES IT ONLY KILL ADULT INSECTS?

- The Cocoon Indoor™ is designed to eliminate all insects in all development stages.

10.8. CAN I SPEED UP THE PROCESS OF DEPLETING OXYGEN?

- Yes, The Cocoon Indoor™ has Gas-Hermetic Fumigation features, where users can flush in carbon dioxide (CO₂) and more rapidly create a “controlled atmosphere” that is low in oxygen (O₂) and high in carbon dioxide (CO₂).

10.9. CAN I USE PHOSPHINE INSTEAD OF CARBON DIOXIDE (CO₂)?

- Yes, while we do not encourage its use due to phosphine’s adverse health effects on operators and because of growing insect resistance, we understand that many continue to use it. Gastight containers are necessary for efficient phosphine application.

10.10. IS IT REUSABLE?

- Yes, as long as the PE material of the Cocoon Indoor™ is undamaged.

11. WARRANTY CLAUSE

GrainPro® hereby warrants that the product sold to buyers shall be free of defects in workmanship and materials for a period as follows, starting from the date of shipment (B/L): One year for the GrainPro® Cocoon™ Indoor.

The warranty liability is limited to the replacement of defective products within the warranty period at GrainPro’s plant in accordance with the provisions specifically and expressly set forth herein.

The Buyer will pay for the products that need to be replaced under warranty, a percentage of the full list price according to the ratio between the period that has passed until replacement and the full warranty period.

The Buyer shall bear the shipping costs for shipment of defective Products to GrainPro®, and GrainPro® shall bear the shipping costs of returning good Products to the Buyer.

The Warranty does not cover the cost of any service, work, or material required for the replacement of defective Products at the site of installation.

GrainPro® shall have no obligation under the warranty to replace defective Products or parts thereof if the defect is a result of any of the following: normal wear and tear; damages occurring after delivery, accidents, acts of God, or catastrophes, buyer's fault or negligence, improper storage or installation, and improper maintenance.

Replacement costs and shipping charges for Products found not to be under warranty as specified above shall be paid in full by the Buyer before new/refurbished Products are shipped.

Notwithstanding the above, if the Products include main parts or sub-assemblies purchased by GrainPro® from other vendors ("Additional Equipment"), then the period and terms of warranty for Additional Equipment are limited to the period and terms offered by the vendors of such equipment.

The Buyer agrees that the warranty liabilities of GrainPro® shall be and are limited to the express foregoing terms: THE EXPRESS WARRANTIES AND OBLIGATIONS SET FORTH ABOVE ARE AND SHALL BE IN LINE OF ALL OTHER WARRANTIES AND OBLIGATIONS OF GRAINPRO®, and EXPRESSED OR IMPLIED. EXCEPT TO THE EXTENT HEREIN PROVIDED, GRAINPRO® DOES NOT MAKE AND SHALL NOT BE DEEMED TO MAKE ANY WARRANTY WHATSOEVER TO ANY END USER OR ANY OTHER PERSON OR PARTY, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE OR PURPOSE. GRAINPRO® SHALL NOT BE LIABLE FOR ANY LOSS OF USE, SALES, OR PROFIT OR ANY INDIRECT, CONSEQUENTIAL, OR INCIDENTAL DAMAGES CAUSED BY OR SUFFERED AS A RESULT OF THE SALE OR USE OF THE PRODUCTS.

For further information and clarification, visit our website at www.grainpro.com; email our technical Support team: customercare@grainpro.com or call: (+6347) 252-7884.