



PROTECTION EXPERTS  
AUSTRALIA

Catalogue  
June 2021

We'll beat any reasonable quote



[pro-ex.com.au](http://pro-ex.com.au)

02 9945 0593

Solutions to protect your items from  
moisture, oxygen and transit damage.

desiccants | absorbers | strapping & accessories



# Protection Experts Australia

Welcome to the Protection Experts Australia catalogue - the first of its kind. We're excited to bring you our complete product range in one handy location.

All these products can be found online at **pro-ex.com.au** along with their current pricing. Remember, if you don't see something you're after, please give us a call as we're always on the lookout for products to expand our portfolio.

Things are rarely quiet at Pro-Ex, so don't forget to subscribe to our online newsletter. Subscribers are the first to hear about our newest items, promotions and pieces that will help you get more from your Pro-Ex products. We can also be found on Facebook, LinkedIn and Instagram.

Once again, thank you for your support.

**Yolanda Bacon**

**Protection Experts Australia Owner**



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Webbing  
Buckles  
Tensioners & Dispensers

Information in this catalogue is correct as at June 2021. Protection Experts Australia has taken the utmost care to provide accurate and complete information at the time of compilation. Some products may vary slightly from images presented.

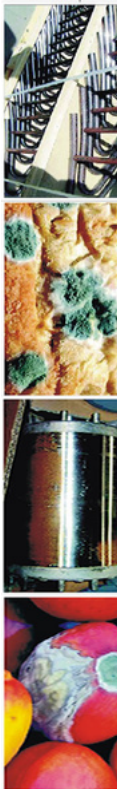
For the most current information visit our website at **[www.pro-ex.com.au](http://www.pro-ex.com.au)**



# Shipping Desiccants

**Shipping Desiccants** protect your cargo from the effects of damaging moisture. Shipments (and your cargo) are subject to a host of environmental conditions as they traverse the globe.

Shipment time, climatic conditions during the journey, air volume in the container, type of packaging used and the cargo type are all factors to consider when selecting the right shipping desiccant for you. Bear in mind also, the labour costs incurred when installing and disposing of units.



## How moisture damage presents in a container



Mould & mildew



Damaged packaging



Corrosion



Collapsed packaging



Bad or changed smell



Peeling labels



Bad or changed taste



Powder caking



Bugs



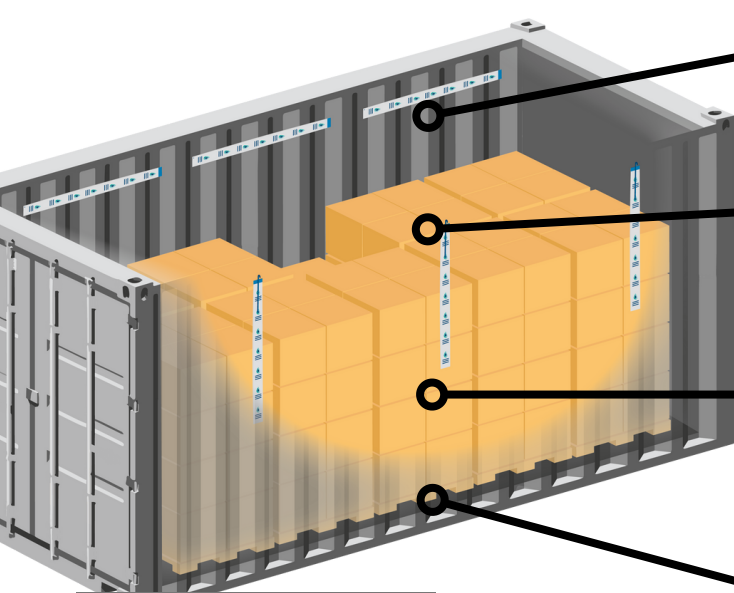
Warped

Product Name	Gel-based Desiccant	Mineral Desiccant (MD)	Calcium-based Desiccant
Pro-Ex range	Absorgel 1kg Absorgel Pouches Absorgel Max	Esorb 1kg Esorb 2kg	Absorbag Absorpole
Active Ingredient	Calcium Chloride + Modified Starch	Calcium Chloride + Montmorillonite Clay	Calcium Chloride
Absorbing Capacity (up to)	300%	70%	150%
Advantages	* Superior absorption capabilities * No liquid collection	* Cheaper per unit	* High absorption capabilities
Disadvantages	* Can not come in to contact with metallic cargo	* Can not come in to contact with metallic cargo	* Liquid collection (risk of spillage)



# Understanding the moisture threat

## Where does the moisture come from?



### Air

A container is not fully sealed. Moist air will always find its way in.

### Products

Moisture can be added inbound from sub-suppliers.

### Packaging Material

If it rains during container loading, packaging may become wet.

### Floor

When cleaning a container, water is used and absorbed into the container floor.

Excess moisture is attracted to the driest surface - usually your goods!

## Four elements driving goods damage

1

**Time** - Inter-continental transport can takes weeks

2

**Temperature Variations** - Night/day or changes in latitude

3

**Organic Material** - Mould and mildew thrive in moist material

4

**Moisture** - Wet climatic conditions and humidity



# The real cost of moisture damage

## Direct costs

Consider 1% of container value needing to be scrapped due to moisture damage. A container with stock retailing at \$500,000 will require \$5,000 of stock to be scrapped. Per container these costs escalate quickly.

Often as much as 10% of container damage is related to the effects of moisture.

Yearly, the value of damaged goods globally exceeds \$500 billion.

## Indirect costs

Direct costs are simply the tip of the iceberg.



## Environmental costs

Moisture damage is wasting finite global resources.

It is estimated 50% of all food produced on the planet never reaches its intended human stomach!



# Relative Humidity defined

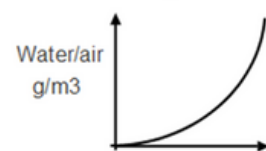
Humidity levels in air depend on its Relative Humidity (RH). RH is the amount of moisture in the air as a percentage of the amount the air can actually hold.

**Warmer** air can hold more moisture than **cooler** air. This means for a given amount of atmospheric moisture, RH will be lower if air is warm than it would be if the air is cool.

Entirely dry air has a Relative Humidity (RH) of 0%. Maximum humid air has a RH of 100%. There is rarely any moisture damage if the RH is less than 70%, although there are some exceptions.

As a rough rule of thumb the amount of moisture the air can hold doubles for every 10 degrees Celsius over normal temperatures. If for instance air of 20°C and RH 50% is cooled to 10°C, the RH will reach 100%. Any further cooling will cause immediate condensation. If the air is then heated, the RH will drop below 100% and any condensation that had occurred would over time re-evaporate back into the air.

## **Exponential relation between humidity and temperature**



*For each 10C of temperature increase, the amount of water the air can hold doubles.*

## **How does Relative Humidity impact my goods?**

The humidity of the air changes as a result of the change in temperature. When air cools it becomes more humid, even though the moisture content in the air remains the same. The humidity in a container will go up and down throughout the voyage, as a result of temperature fluctuations. If the temperature changes rapidly there is always a moisture risk, even if the container may be fairly dry.

Important factors to consider when selecting desiccants:

- ☒ **Container:** Weather conditions when loading, the condition of the container, whether the container is airtight, whether the container was dry when loading?
- ☒ **Transport:** Route, container position on vessel, temperature differences, Relative Humidity, duration and climatic conditions during journey
- ☒ **Goods:** Type of packaging, dry or moist goods

Source: Bureau of Meteorology, Absortech



# Benefits of moisture protection



## Tackling moisture damage results in:

- ✓ Goods arriving in the same condition as loaded
- ✓ Unlocking the full value from your containers contents
- ✓ No time and money spent on reconditioning the goods
- ✓ Improved working environment for goods receivers
- ✓ No production interruption
- ✓ Fewer customer claims
- ✓ Improved customer/supplier relations
- ✓ Reputation enhanced
- ✓ Environmental savings

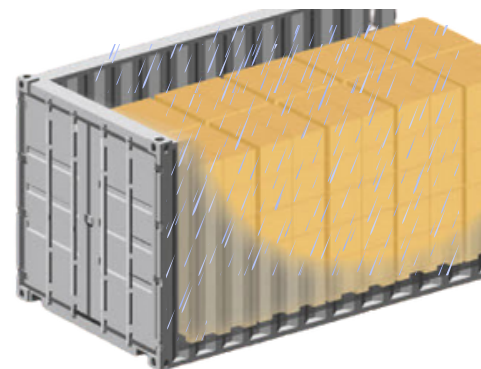




# Tackling Container Rain

**Did you know?**

*Approximately 10% of all containerised goods are discarded due to moisture-related damage.*



## Inside a container

All containers contain moisture – it is in the air, the pallets, packaging and your goods. No container is completely airtight. Moisture moves in and out of the container during the course of the voyage. This is known as ‘container breathing’.

## What is container rain?

Container rain is the result of moisture and temperature fluctuations. The key to container rain is understanding that warm air will hold more moisture than cold air.

Moisture trapped in the container will condense in the colder areas of the container. When temperatures once again climb, condensed water expands and rises clinging to container ceilings and walls. This moisture on the walls is known as container sweat. As the condensed water builds up on these surfaces, it can drip down on the cargo, causing damage such as mould, warping, corrosion, soggy packaging and foul odours.

Temperature fluctuations are common for containers. As cargo moves around the globe, shipping containers can be exposed to extreme temperature and climate fluctuations. Night time temperature drops or unexpected weather fronts impact the movement of moisture in a container. International shipping introduces greater variations as humidity levels fluctuate and containers can move between seasonal extremes.

## The role of desiccants

Shipping desiccants prevent the build-up of moisture in the air to levels where it may cause damage to cargo. These drying agents control the relative humidity levels of a container thereby minimising the risk of container rain.





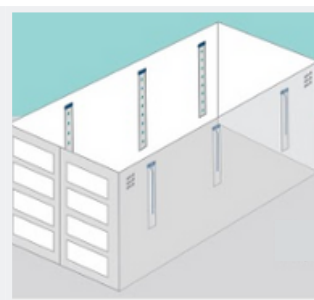
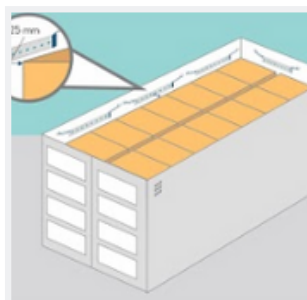
# Shipping Desiccants

## Absorgel Shipping Desiccant 1kg

- Active Ingredient: Calcium Chloride + Modified Starch
- Absorbing Capacity: up to **300%**
- Dimensions: 95cm x 13.5cm x 3cm
- 10 units per carton
- Our top seller with superior absorption capabilities
- Rapidly absorbs moisture with no liquid (so no spills!)
- Versatile units, that can be hung vertically or horizontally using hook or grommets
- Two adhesive strips allow unit to be secured to container wall
- Can not come in contact with metal
- SKU: ABS-04-SH (short hook)
- SKU: ABS-04 (long hook)



### Short or Long Hook option



### Absorgel Hanging Recommended Units

Container Size	Dry Cargo	Moist Cargo
20"	4 - 6	8 - 10
40"	8 - 12	16 - 20

## Esorb Hanging Mineral Desiccants

- Active Ingredient: Calcium Chloride + Montmorillonite Clay
- Absorbing Capacity: up to **70%**
- Can be used as an inbox or container desiccant
- Hanging hook makes installation a breeze
- Cost effective alternative desiccant
- Not to be used with organic or metal componentry



Product Name	Weight (kg)	Product Dimension (cm)	Units/Ctn	SKU
MD - 1kg	1	24 x 26 x 5	16	MD-1kg-TY
MD - 2kg	2	24 x 37 x 8	8	MD-2kg-TY

Container Size	MD 1kg	MD 2kg
20"	16	8
40"	32	16





# Shipping Desiccants

## Absorpole

- Active Ingredient: Calcium Chloride
- Absorbing Capacity: up to **150%**
- Dimensions: 118cm x 11.6cm x 3.5cm
- Durable with a rigid casing
- Hang vertically in corrugated container recesses
- Liquid collection
- **SKU: ABS-03**



### Absorpole Recommended Units

Container Size	Short Distance, < 30 days		Long Distance, > 60 days	
	Dry Cargo	Moist Cargo	Dry Cargo	Moist Cargo
20"	6	8	8	10
40"	10	12	12	14



## Absorbag

- Active Ingredient: Calcium Chloride
- Absorbing Capacity: up to **150%**
- Dimensions: 125cm x 13.5cm x 5cm
- 12 units per carton
- Hang vertically in corrugated container recesses
- Ideally suited when free space between exported cargo and container walls
- Liquid collection
- **SKU: ABS-01**

### Absorbag Recommended Units

Container Size	Short Distance, < 30 days		Long Distance, > 60 days	
	Dry Cargo	Moist Cargo	Dry Cargo	Moist Cargo
20"	4	6	6	8
40"	8	10	10	12

Protection Experts Australia are the exclusive Australian supplier of the Absortech Group desiccant range.





# Shipping Desiccants

## Absorgel Max

- Active Ingredient: Calcium Chloride + Modified Starch
- Absorbing Capacity: up to **300%**
- Dimensions: 50cm x 53cm
- 12 units per carton
- Suitable when cargo is high loaded close to container ceiling and walls
- Can be hung from the lashing rings below the container ceiling
- SKU: ABS-07



### Absorgel Max Recommended Units

Container Size	Dry Cargo	Moist Cargo
20"	2 - 4	4 - 5
40"	5 - 6	6 - 7

## Absorgel Pouch 125g

- Active Ingredient: Calcium Chloride + Modified Starch
- Absorbing Capacity: up to **300%**
- Dimensions: 17cm x 15cm
- Weight: 125g
- Adhesive backing: 7cm x 13.5cm
- 100 units per carton
- No liquid collection
- SKU: ABS-05

Absorgel Pouches are effective in controlling moisture inside of crates, cartons and other types of packaging to prevent mould, fungus, rust and other moisture related damage.

Versatile

**Adhesive backing** on the 125g Absorgel Pouch, allows for more versatile and flexible installation options.

The Pouch can be mounted on container walls, the side or top of pallets or simply packed between cargo.



*Pro-Ex can assist you to calculate the exact number of units you will need in your unique circumstances.*



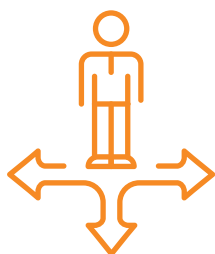
# Moving to a sustainable future



## Absorpole

### The first carbon neutral desiccant

**Carbon neutral** means that the overall emissions of the sourcing and production of the product are equal to zero. Suppliers and resources are selected with the lowest environmental impact and carbon footprint. Unavoidable emissions are offset with investment in a Sustainable Development project.



When you choose the new Absorpole CO2 neutral, you can save up to **1300kg** of CO2. Buying 100 Absorpoles is equivalent to the emissions of...

- driving **520km** in a petrol car
- watching **2400** TV series shows
- electricity for **4000** hours vacuuming
- buying **23** smartphones

Absorpole is the first in what will be a range of carbon neutral desiccants planned for roll out. Stay tuned for future product releases.

## Absortech's commitment to sustainability

### Calculating the exact carbon footprint

Understanding the numbers, helps direct efforts to reduce emissions and direct investment in offset programs. All calculations of emissions have been validated by the IVL Swedish Environmental Institute.

### Net Zero CO2

From cradle-to-gate, the CO2 emissions from the sourcing and production processes of the Absorpole have been calculated. Where CO2 emissions are unavoidable these have been offset, creating the first carbon neutral desiccant.

### 60% less climate impact

Plastic components are made of recycled plastic with 60% less carbon footprint than previously used materials.

### Return-to-Reuse program

Desiccant components can be returned to Absortech Group for re-use, thereby creating a circular economy for desiccants.

### Offsetting Project in Ethiopia

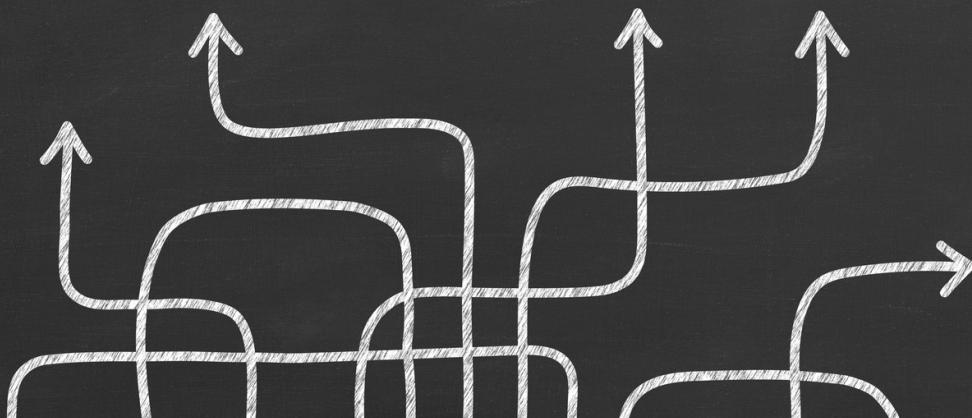
Absortech offset 0.9kg of CO2 for each Absorpole via "Climate+" Gold Standard projects to benefit climate protection, local people and ecosystems. Reforestation in Ethiopia to plant 1 million trees is the first such project.





# Navigating Absorber options

## Choosing the right desiccant



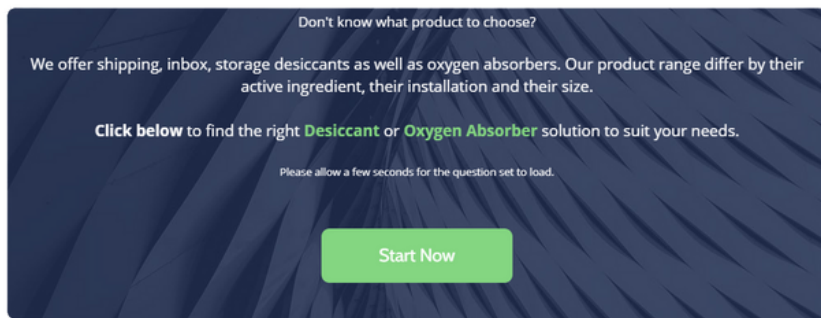
**Overwhelmed by the variety of desiccants available?**

**You are not alone.**

At Pro-Ex we've developed a tool to take the guesswork out of choosing a desiccant.

Our quiz walks you through the factors to consider when choosing a desiccant. One size does not fit all. This tool will help you to discover what best suits your unique circumstances.

Head to [pro-ex.com.au](http://pro-ex.com.au) and take the Pro-Ex quiz.





# Security Seals

## Bolt Seal VI

- Narrow 7.6mm shaft designed to fit narrow spaces
- Spring Wire locking mechanism
- Self-locking mechanism ensures easy locking without any need for tools
- Plastic moulded anti-spin feature on shaft and bolt
- Matching serial number on bolt and shaft
- Removal only with bolt cutter
- SKU: SQBSIV



## Fixed Length Double Locking Plastic Seal

- One way locking design prevents errors during application
- Double Locking mechanism provides greater security
- Protruding tail provides visual evidence of correct application
- Secure sealing method is used to secure the locking mechanism
- 4-sided plastic locking teeth provides greater security
- 7mm wide strap fits all truck latches
- Hot stamped or laser etched markings with unique Serial Number
- SKU: SQFL1

## Light Duty I Adjustable Length Plastic Security Seal

- Easy to use for all applications with small sealing facilities
- Tear-off feature enables easy removal without needing tools
- Security stopper at the end of the tail prevents reverse locking
- Heat staking technology to secure the locking chamber
- 3mm round locking strap provides flexibility and durability
- 4-sided plastic locking teeth provides greater security
- Laser etched markings with unique Serial Number and Barcode
- SKU: SQLDI

All Pro-Ex security seals can be customised with logos, text, barcodes and/or serial number.





# Dunnage Bags



## Dunnage Bags

- Dimensions: 90cm x 180cm
- Material: *Outer Layer* - Polypropylene woven fabric with UV protection, *Inner Layer* - co-extruded PE and Nylon with high puncture resistance
- Brace loads, fill voids, protect cargo from in-transit damage and absorb vibrations. Dunnage bags prevent cargo shifting, slipping or dropping
- Fast fill valves with good air impermeability
- Load Capacity: Less than 20 ton (45,000lbs)
- Max PSI: 2.90
- SKU: BD90180

Dunnage Bags can be inflated with our Dunnage Bag Inflator. Alternatively, an air compressor with an 8mm connection pipe can be used.



## Dunnage Bag Inflator

- Material: Plastic and Metal
- Dimensions: 20cm x 18cm x 6cm
- Weight: 270g
- Power: 11.25 Amps
- Voltage: 120V
- Frequency: 60 Hz
- SKU: DBInf



Buy our Dunnage Bag bundle and SAVE



# Inbox Absorbers

INBOX ABSORBERS	Clay Desiccant (MT)	Mineral Desiccant (MD)	Silica Gel	Gel-based Desiccant
Pro-Ex Range	MT 1 - 16 Unit	MD 100g - 500g	Silica Gel 0.5g - 500g Indicating Silica Gel 600g - 1.9kg	Absorgel Pouch 25g - 125g
Active Ingredient	Montmorillonite Clay	Calcium Chloride + Montmorillonite Clay	Silica Gel	Calcium Chloride + Modified Starch
Absorbing Capacity (up to)	30%	70%	30%	300%
Advantages	* Environmentally friendly * Conforms to MIL-D-3464	* Superior absorption capabilities	* Well known * Can be used with organic and metal cargo	* Superior absorption capabilities * No liquid collection
Disadvantages	* Lower absorption capabilities	* Can not come in to contact with metallic cargo	* Lower absorption capabilities * Requires relatively stable environment to work optimally	* Can not come in to contact with metallic cargo

## Clay Desiccants (MT)

- Active Ingredient: Montmorillonite Clay
- Absorbing Capacity: up to **30%**
- Environmentally friendly
- Conforms to MIL-D-3464
- Suitable for use with metal components
- Available in a variety of sizes



Product Name	Weight (g)	Product Dimension (cm)	Units/Ctn	SKU
MT - 1 unit	33	7.8 x 9.5	400	MT-1Unit-TY
MT - 4 unit	132	9.8 x 15	100	MT-4Unit-TY
MT - 8 unit	264	10.5 x 21	60	MT-8Unit-TY
MT - 16 unit	528	15 x 25	30	MT-16Unit-TY



## Mineral Desiccant (MD)

- Active Ingredient: Calcium Chloride + Montmorillonite Clay
- Absorbing Capacity: up to **70%**
- Higher absorption capabilities
- Not to be used with organic or metal componentry

Product Name	Weight (g)	Product Dimension (cm)	Units/Ctn	SKU
MD - 100g	100	13 x 9 x 1	140	MD-100g-TY
MD - 250g	250	20 x 10 x 2	50	MD-250g-TY
MD - 500g	500	26 x 14 x 2	32	MD-500g-TY



# Inbox Absorbers

## Absorgel Pouches



- Active Ingredient: Calcium Chloride + Modified Starch
- Absorbing Capacity: up to **300%**
- Superior absorption capabilities
- Rapidly absorbs moisture
- No liquid collection
- Can not come in contact with metal components
- Available in a variety of sizes



### Absorgel Pouch 25g

- Dimensions: 12.5cm x 11cm x 1cm
- Weight: 25g
- **SKU: ABS-11**



### Absorgel Pouch 100g

- Dimensions: 21cm x 15.5cm x 1cm
- Weight: 100g
- Self-indicating! Desiccant changes colour when spent and needs replacing
- **SKU: ABS-10**



### Absorgel Pouch 125g

- Dimensions: 17cm x 15cm
- Weight: 125g
- Adhesive backing: 7cm x 13.5cm
- **Adhesive panel** allows the Pouch to be mounted on the sides and top of boxes
- **SKU: ABS-05**





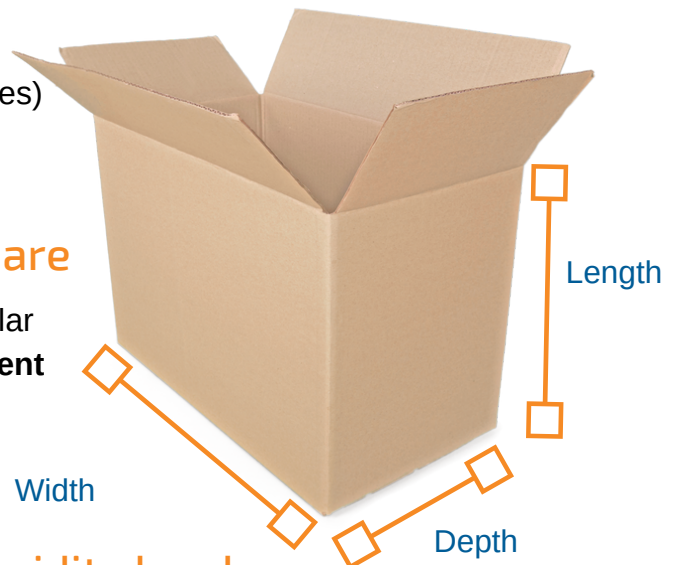
# Calculating Inbox Absorber needs

## 1. Calculate Container Volume

Depth (cm) x Length (cm) x Width (cm) = Volume (litres)

## 2. Decide how well sealed the items are

**Completely sealed environment** uses a VCI or similar moisture barrier packaging. A **well sealed environment** simply uses plastic wrapping.



## 3. Determine the desired relative humidity levels

The degree of a goods porosity will impact the humidity levels you would like to maintain. Food, fabrics and metal are at risk of humidity breeding mould and corrosion. Plastics may however be less prone to damage from high humidity levels. See discussion on relative humidity and how it affects goods.

## 4. Crunch the numbers

Use the online Pro-Ex tool to calculate the quantities of desiccant required at [pro-ex.com.au/inbox-calculator/](http://pro-ex.com.au/inbox-calculator/)

## 5. Select the desiccant that best fits your needs

Absorbers or desiccants are not all created equal. Active ingredients differ, so too the situations in which they can be used. Pro-Ex offer a number of desiccants in a variety of sizes and welcome any questions as to what will best suit your needs.

Pro-Ex have a number of **online calculators** to help you work out the quantities you'll need.

Check out Pro-Ex 'Resources' for our Silica Gel, Inbox Absorber and Oxygen Absorber calculators.





# Silica Gel

## Silica Gel

- Active Ingredient: Silica Gel
- Absorbing Capacity: up to **30%**
- Well known
- Suitable for organic and metal cargo
- Requires a stable environment to work effectively
- Available in a variety of sizes 1/2g to 500g



Contact our office for details on our Continuous Silica Gel range.

Product Name	Weight (g)	Product Dimension (cm)	Units/Ctn	SKU
Silica Gel 0.5g	0.5	1.7 x 3.4	12,000	SD-0.5g-TY
Silica Gel 1g	1	1.8 x 3.9	7,000	SD-1g-TY
Silica Gel 2g	2	2.2 x 4.6	4,000	SD-2g-TY
Silica Gel 5g	5	4.5 x 6.5	2,000	SD-5g-TY
Silica Gel 10g	10	6 x 8	800	SD-10g-TY
Silica Gel 25g	25	7.5 x 9	500	SD-25g-TY
Silica Gel 50g	50	7.8 x 11	240	SD-50g-TY
Silica Gel 100g	100	9.8 x 13.5	120	SD-100g-TY
Silica Gel 500g	500	15 x 21	28	SD-500g-TY

## Indicating Silica Gel

- Active Ingredient: Silica Gel
- Absorbing Capacity: up to **30%**
- Colour change lets you see at a glance when your silica gel is spent, allowing you to make full use of your silica gel
- Option: Orange (turns green) or Blue (turns pink)
- Note: Only orange silica gel can be used with food products. Blue silica gel contains cobalt chloride, rendering it unsuitable for use with food products



Product Name	Weight (kg)	SKU (Blue)	SKU (Orange)
Indicating Silica Gel 600g	0.6	SDR-600g-Blue	SDR-600g-Orange
Indicating Silica Gel 1.2kg	1.2	SDR-1.2kg-Blue	SDR-1.2kg-Orange
Indicating Silica Gel 1.9kg	1.9	SDR-1.9kg-Blue	SDR-1.9kg-Orange
Indicating Silica Gel Drum	25	SD-25kg-Blue	SD-25kg-Orange



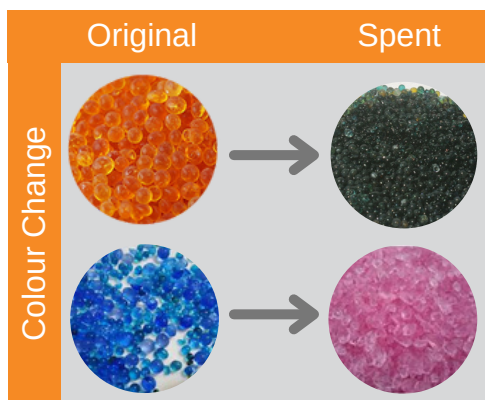
# Transformer Breathers

The 'R' Series Transformer Breathers are manufactured from UV stabilised polycarbonate and are available in three different sizes.

The clear polycarbonate cylinder allows for clear visibility of the desiccant charge and enables users to check desiccant condition with ease.



- ✓ No oil! No need to refill oil or risk damage to the colour change mechanism.
- ✓ Self indicating gel - at a glance operators can see if silica gel is spent.
- ✓ An environmentally friendly solution, with re-usable cartridges.
- ✓ Easy to install and maintain.



Product Name	Conservator Tank (litres)	Overall Length (mm)	Overall Diameter (mm)	Desiccant Volume (kg)	SKU (Empty)	SKU (inc Blue Silica Gel)	SKU (inc Orange Silica Gel)
R Breather	1,500	158	108	0.6	E-TBR	E-TBR+SG Blue	E-TBR+SG Orange
R1 Breather	3,000	260	108	1.2	E-TBR1	E-TBR1+SG Blue	E-TBR1+SG Orange
R2 Breather	4,750	362	108	1.9	E-TBR2	E-TBR2+SG Blue	E-TBR2+SG Orange

Each Breather has an approximate charge life of 300 days.



Silica Gel refills are available for each unit, and big savings can be made with our bulk 25kg refill option.

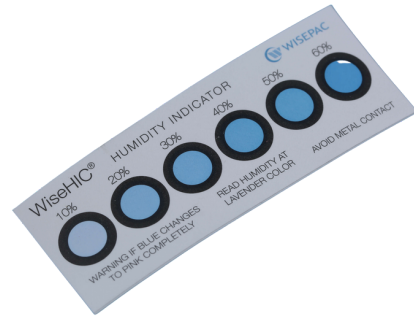




# Preservation

## Humidity Indicator Card

- A paper instrument providing an accurate and convenient humidity testing solution
- Used in tandem with inbox desiccants and moisture barrier bags to validate these protective measures are effective in controlling moisture levels
- Low cost
- Blue indicator dots turn pink once that humidity percentage has been reached
- **SKU: HIC-6 Spot**



## Mylar Bags

- Mylar provides a superior barrier to oxygen, moisture and light
- Ideal for long term food storage
- Resealable, these bags can be conveniently compressed and sealed before heat-sealing with a clothes iron
- Tear notch for easy access
- Waterproof, puncture and tear resistant Mylar Bags prevent rust, oxidation, moisture and damp
- Suitable for storing grains, dried food, coffee beans, spices, beef jerky, bath salts, sugar, rice, tea leaf, dried flowers, pet food, electronic accessories, photographs and more
- **Stand Up Pouch** - contains a 4cm base and transparent front to display items



Stand Up Pouch with clear panel

Product Name	Quantity	Product Dimension (cm)	Thickness (μ)	SKU
Mylar Bag - Small	50	15 x 20	110 (4.3 mil)	MB-15*20
Mylar Bag - Medium	50	23 x 32	110 (4.3 mil)	MB-23*32
Mylar Bag - Large	50	30 x 40	110 (4.3 mil)	MB-30*40
Stand Up Pouch	50	16 x 23	100 (3.9 mil)	APB-16*23



## Mylar Bag + Oxygen Absorber

We recommend using Mylar Bags in tandem with oxygen absorbers to ensure the successful preservation of items.

Check out our **Value Bundles** and save today!



Bundle  
&  
SAVE



# Oxygen Absorbers

## What is an oxygen absorber?

An oxygen absorber or oxygen scavenger is a porous sachet that removes the oxygen from the atmosphere. The absence of oxygen prolongs the shelf life of food products. They are commonly used in food packaging to:

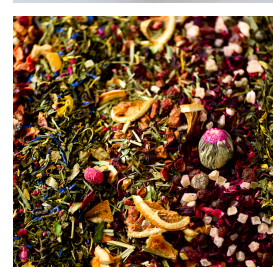
- help retain the original flavour, colour, smell and texture
- inhibit oils in foods from becoming rancid, and
- prevent the growth of oxygen-loving microorganisms such as bacteria, mould and fungi which leads to food spoiling.

## How does an oxygen absorber work?

Oxygen absorbers use the available moisture in the food and air to cause the iron particles in the sachet to 'rust', thereby removing the available oxygen in the air. The food packaging is then left with a higher concentration of nitrogen, which are better conditions for a longer shelf life. Trapping the oxygen usually generates a small amount of heat.



## Typical Applications



## Oxygen Absorber range

Oxygen Absorber Range	Absorbing Oxygen Capacity (ml)	Sachet Dimension (mm)	Sachet Weight (g)	Sachets Per Bag	Sachets Per Carton	SKU
Type A 30CC	30	30 x 40	1.1±0.2	200	6,000	OA-30CC
Type A 50CC	50	40 x 45	1.7±0.2	200	5,000	OA-50CC
Type A 100CC	100	40 x 55	3.3±0.2	100	2,500	OA-100CC
Type A 200CC	200	50 x 60	6.6±0.3	50	1,500	OA-200CC
Type A 500CC	500	70 x 85	14.5±1.4	50	1,000	OA-500CC



# Calculating Oxygen Absorber needs

## 1. Measure Sealed Chamber Volume

Key to calculating your oxygen absorber requirements is isolating the dimensions of the **sealed chamber**. All measurements should therefore be made from 'seal to seal' (see dotted lines).



Depth = 6.5cm  
Width = 10.5cm  
Length = 15cm  
Net Weight = 150g

## 2. Calculate Oxygen Absorber needs

Oxygen Absorber Calculation				
Oxygen Volume (CC)	=	Sealed Package Dimensions (cm): (Length x Width x Depth)	-	Food Weight (g): contents only x 20%
	=	(15 x 10.5 x 6.5)	-	150 x 20%
Oxygen Volume (CC)	=	174.75		

## 3. Interpret the results

1 x 200CC Oxygen Absorber sachet OR  
2 x 100CC Oxygen Absorber sachet OR  
3 x 50CC Oxygen Absorber sachet OR  
6 x 30CC Oxygen Absorber sachet





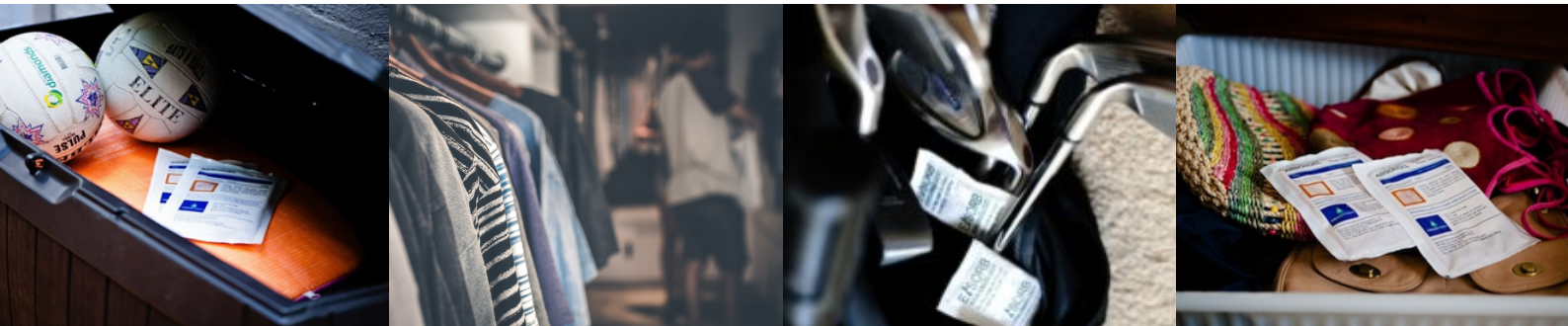
# Absorbers in the Home

## Why do I need absorbers in my home or office?

Our homes and offices are exposed to the vagaries of environmental conditions. Seasonal fluctuations, day and night temperature changes, as well the mere presence of breathing humans and pets, heaters and air conditioners all impact the moisture conditions in and around the house.

Good ventilation by regularly opening windows and doors is a great way to combat the build up of moisture within the home. However this can only go so far.

What about those boxes stacked in the attic or the back of the cupboard rarely opened? The sporting equipment that gets packed away for the winter months? Electronic gadgets tucked away in a downstairs garage? For these situations, moisture absorbers can take the lead and keep mould and odours at bay.



### Typical places to use Absorbers

- ✓ Clothing Cupboards
- ✓ Bathroom Cupboards
- ✓ Laundry Cupboards
- ✓ Pantry
- ✓ Tool Shed
- ✓ Storage Boxes/Rooms
- ✓ Garages

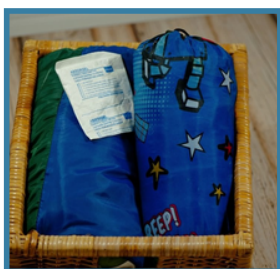
### Household items at risk of damage

- ✓ Clothes
- ✓ Decorations
- ✓ Shoes
- ✓ Photo Albums
- ✓ Certificates
- ✓ Keepsakes
- ✓ Electronics

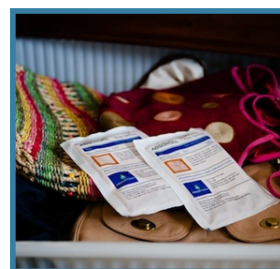


# Storage Absorbers

## Absorgel Pouches



- Active Ingredient: Calcium Chloride + Modified Starch
- Absorbing Capacity: up to **300%**
- Superior absorption capabilities
- Rapidly absorbs moisture
- No liquid collection
- Can not come in contact with metal components
- Available in a variety of sizes



### Absorgel Pouch 25g

- Dimensions: 12.5cm x 11cm x 1cm
- Weight: 25g
- SKU: ABS-11



### Absorgel Pouch 100g

- Dimensions: 21cm x 15.5cm x 1cm
- Weight: 100g
- Self-indicating! Desiccant changes colour when spent and needs replacing
- SKU: ABS-10



## Silica Gel

- Active Ingredient: Silica Gel
- Absorbing Capacity: up to **30%**
- Well known
- Suitable for organic and metal cargo
- Requires a stable environment to work effectively
- Available in a variety of sizes - 1/2g to 500g

Product Name	Weight (g)	Product Dimension (cm)	Units/Ctn	SKU
Silica Gel 0.5g	0.5	1.7 x 3.4	12,000	SD-0.5g-TY
Silica Gel 1g	1	1.8 x 3.9	7,000	SD-1g-TY
Silica Gel 2g	2	2.2 x 4.6	4,000	SD-2g-TY
Silica Gel 5g	5	4.5 x 6.5	2,000	SD-5g-TY
Silica Gel 10g	10	6 x 8	800	SD-10g-TY
Silica Gel 25g	25	7.5 x 9	500	SD-25g-TY
Silica Gel 50g	50	7.8 x 11	240	SD-50g-TY
Silica Gel 100g	100	9.8 x 13.5	120	SD-100g-TY
Silica Gel 500g	500	15 x 21	28	SD-500g-TY





# Home Hanging Absorbers

**Hanging Absorbers** are the next generation of absorbers. They recognise the unique demands of protecting items around the home - the problem areas, space constraints and ease of use.

The Pro-Ex Hanging Absorber range are versatile absorbers with a handy hook allowing you to easily hang the units neatly within cupboards.



## Absorgel 250g with Hook

- Active Ingredient: Calcium Chloride + Modified Starch
- Absorbing Capacity: up to **300%**
- Dimensions: 42cm x 14cm x 2cm
- Weight: 290g
- Superior absorption capabilities
- Rapidly absorbs moisture
- Can not come in contact with metal
- SKU: ABSH-14



## Looking to preserve your pantry items?

Check out our range of **Oxygen Absorbers**, designed to protect items from the damaging effects of prolonged oxygen exposure.

Use in tandem with **Mylar Bags** to extend the shelf life of your pantry items.



# Removalist Products

## Furniture Felt Roll

- Dimensions: 1.8m x 20m
- Weight: 22kg
- 600gsm
- SKU: FR-20



## Removalist Blanket

- Dimensions: 3.4m x 1.8m
- Weight: 4.3 kg
- Finish: Non woven and quilted with trim
- Colours may vary
- SKU: NNWB



## Adhesive Tape

- Dimensions: 48mm x 75m
- Finish: Clear
- Ideally suited for use on paper and cardboard surfaces, such as boxes and cartons
- Compatible for use with our dispensers
- SKU: TP4875



## 48mm Tape Dispenser

- Dimensions: 24cm x 14cm x 8cm
- Weight: 350g
- Compatible with 48mm adhesive tape
- SKU: TD



## Moving Boxes

Product Name	Volume (L)	Box Dimension (cm)	Boxes Per Pack	SKU
53L Moving Boxes	53	43 x 41 x 30	10	CTN53
108L Moving Boxes	108	63 x 43 x 40	10	CTN108

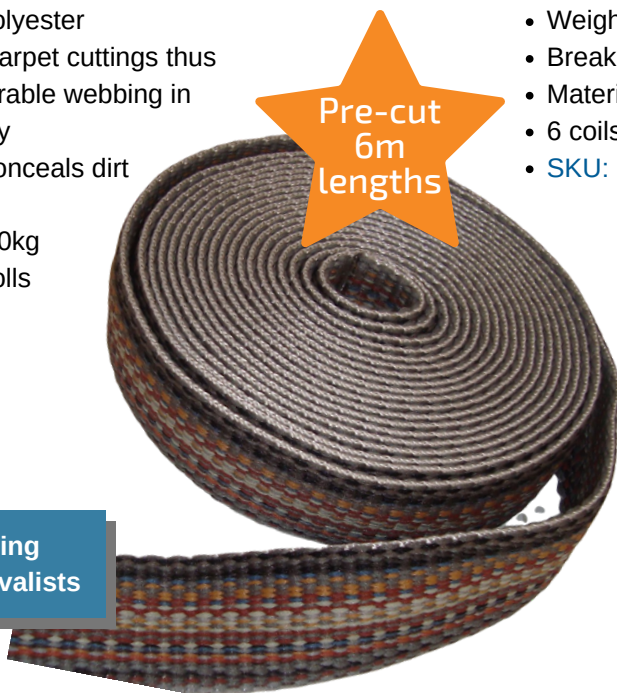
Check out the Pro-Ex Value Pack range for greater savings.



# Removalist Strapping

## Removalist Webbing (Pre-cut)

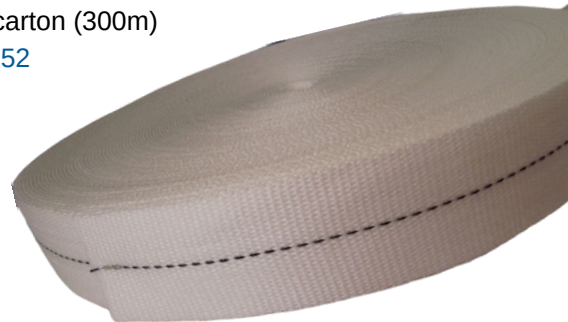
- Dimensions: 40mm x 6m
- Material: nylon and polyester
- Made from recycled carpet cuttings thus making it the most durable webbing in the removalist industry
- Multicoloured finish conceals dirt
- Weight: 264g
- Breaking strength: 750kg
- Coils per carton: 72 rolls
- **SKU: NC1994**



Used by leading Australian removalists

## Removalist Webbing (White)

- Dimensions: 50mm x 50m
- Weight: 2.31kg
- Breaking strength: 750kg
- Material: nylon and polyester
- 6 coils per carton (300m)
- **SKU: NC1952**



## S-Hook Tie Down Ratchet Strap

- Dimensions: 25mm x 4m
- 100% Polyester
- Unit Weight: 380g
- Breaking strength: 400kg
- Ratchet: Stainless Steel
- Sold in Packs of 2
- High visible orange colour
- **SKU: RTD4MO**



## Furniture Lifting Shoulder Straps



- Material: Polyamide webbing
- Breaking strength: 200kgs
- Promotes safe handling technique
- Pack includes: 2 x harnesses with 'e' buckle and shoulder sleeve & 2 x adjustable weight bearing straps (1.6m - 2.7m)
- Weight: 750g
- Width: 5cm
- **SKU: RSS**



Weight bearing straps can be lengthened or shortened according to need using the buckles. Black sleeves can also be moved to maximise comfort.



# Moving Checklist

## PREPARING TO MOVE OUT

### Moving Preparations

#### 1 - 2 months

- Create binder/folder for moving records
- Buy Boxes, Tape, Padding, Markers
- Schedule Movers/ Hire Van
- Reserve storage unit
- Acquire child's school transcript
- Make any home repairs you've committed to
- Start using up stored food

#### 3 - 4 weeks

- Label boxes by room and contents
- Begin packing non-essential items
- Separate valuable items to transport yourself
- Keep box aside for tools and manuals to dismantle/assemble items

#### 1 - 2 weeks

- Pack items separately that you'll need right away at new place
- Book leave for moving
- Find someone to help watch small children or pets on move day

#### < 1 week to go

- Defrost refrigerator
- Withdraw travel cash
- Leave keys/garage door openers

### Life's Administration

#### Transfer/Cancel Utilities

- Telephone
- Water
- Rates
- Gas and electric
- Cable/Internet

#### Notify parties of address change

- Employers, family and friends, solicitor
- Update bank, investment, insurance providers
- Lodge change of address form at Post Office
- Change/Cancel delivery for publications/newspapers
- Cancel automated payment plans, local accounts and memberships

#### Update medical services

- Medical records
- Prescription transfers
- Dental records
- Veterinarian records

## SETTLING INTO YOUR NEW HOME

### Address change

- Arrange for post office to hold mail until move-in date

### Activate utilities

- New telephone number
- Water
- Rates
- Gas and electric
- Cable/Internet

### Update medical services

- Find new doctor
- Find new dentist
- Find new veterinarian
- Find new pharmacy

### Government licenses/services

- Change driver's license address
- Register children in new school

### Interstate moves

- Apply for new driver's license
- Register car
- Register to vote





# Pro-Ex Value Packs



*We bundle our products to offer more value to our customers.*

- ✓ Greater savings
- ✓ Consolidated delivery costs
- ✓ Easier shopping experience (fewer clicks)



This is our **platinum** bundle. A number of options are available for the occasional or seasoned mover or storer.

We offer a variety of bundles that include combinations of the following:

- Shoulder Lifting Straps
- Wrist Lifting Straps
- Adhesive Rolls
- Tape Dispensers
- Removalist Blanket
- 53L Moving Boxes
- 108L Moving Boxes

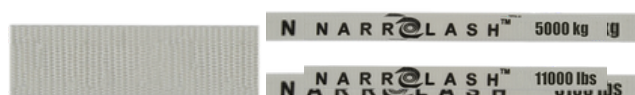
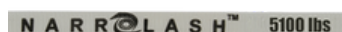
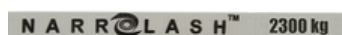
*Head to [pro-ex.com.au](https://pro-ex.com.au) for all the latest money-saving bundles.*



# Strapping & Lashing

## Woven Strapping

- Material: NarrowStrap Woven Polyester
- Superior alternative to steel and plastic strapping
- Available in a range of widths (16 - 19mm) and tensile strengths (350kg - 1,100kg)
- Flexible and does not split
- Can be tensioned using manual or pneumatic tools
- To be used with the following buckles available at Pro-Ex:
  - 16 - 19mm Galvanised Buckle
  - 16 - 19mm Phosphate Buckle (extra grip)
  - 19 - 22mm Galvanised Buckle
  - 19 - 22mm Phosphate Buckle (extra grip)



## Woven Lashing

- Material: Narrolash Polywoven Lashing a high tenacity polyester yarn
- Used for bulk loads
- Available in a range of tensile strengths (2,300 - 5,000kg)
- One of the safest and most cost effective alternatives to steel strapping, chains, wire ropes and ratchet strapping
- To be used with the following buckles available at Pro-Ex:
  - 32mm Drop Forged Buckle
  - 32mm Lashing Buckle - Phosphated
  - 40mm Drop Forged Buckle

### POLYESTER WOVEN STRAPPING

Product Name	Product Code	ID Line	Width (mm)	Breaking Strength (kg)
16mm Strapping - 350kg	NW50B	1 Black	16	350
16mm Strapping - 480kg	NSAW50	1 Blue	16	480
19mm Strapping - 590kg	NSAW189	1 Blue	19	590
19mm Strapping White - 1100kg	NSAW75R	2 Red	19	1,100
19mm Strapping - 840kg	NSAW187	1 Red	19	840
19mm Strapping Orange - 1100kg	NSAW75O	Orange	19	1,100

### POLYESTER WOVEN LASHING

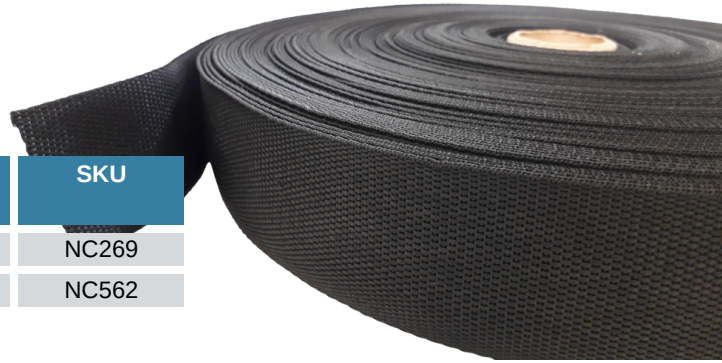
Product Name	Product Code	Width (mm)	Breaking Strength (kg)
32mm Lashing- 2300kg (Layered)	NW105	32	2,300
40mm Lashing - 5000kg (Layered)	NW200	40	5,000



## Polyprop Webbing

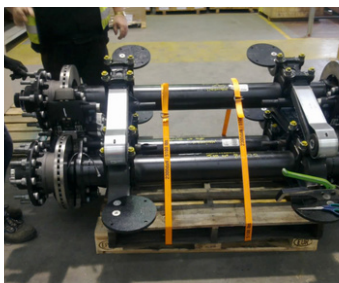
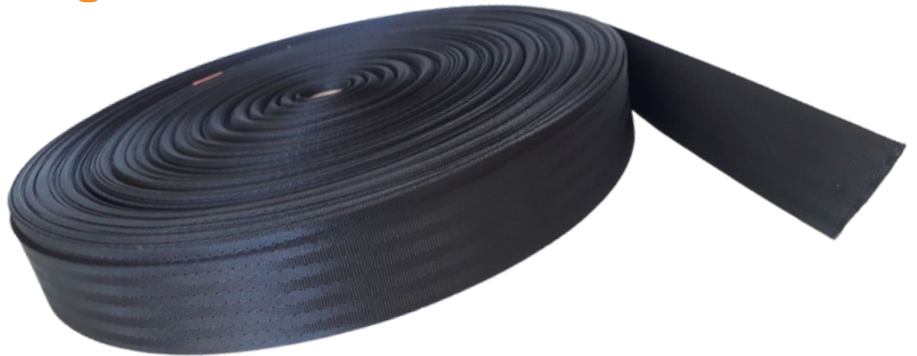
- Light weight woven nylon and polypropylene webbing

Product Name	Width (mm)	Metres Per Coil (m)	Coils Per Ctn	SKU
25mm Polyprop Webbing	25	50	24	NC269
50mm Polyprop Webbing	50	50	11	NC562



## SeatBelt Restraint Webbing

- Width: 50mm
- Breaking strength: 1600kg
- Metres per coil: 100m
- 6 coils per carton (600m)
- SKU: [NC2114](#)





# Buckles

## 16 - 19mm Phosphate Buckle

- Compatible with 16 - 19mm wide strapping
- Phosphate coating creates non-slip surface
- [SKU: PWP16](#)



## 16 - 19mm Galvanised Buckle

- Compatible with 16 - 19mm wide strapping
- Galvanised surface allows strapping to slide easily
- [SKU: PC155](#)



## 19 - 22mm Phosphate Buckle

- Compatible with 19 - 22mm wide strapping
- Phosphate coating creates non-slip surface
- [SKU: PWP19](#)



## 19 - 22mm Galvanised Buckle

- Compatible with 19 - 22mm wide strapping
- Galvanised surface allows strapping to slide easily
- [SKU: PC156](#)



## 32mm Lashing Phosphate Buckle

- Compatible with 32mm wide lashing
- Phosphate coating creates non-slip surface
- [SKU: PWP32](#)



## 32mm Drop Forged Buckle

- Heavy duty ladder buckle
- Compatible with 32mm wide strapping
- [SKU: H3030](#)



## 40mm Drop Forged Buckle

- Heavy duty ladder buckle
- Compatible with 40mm wide strapping
- [SKU: H4040](#)





# Tensioners & Dispensers

## Tensioners

Applying the correct tension and using the compatible buckle, items can be strapped securely ensuring safe, trouble-free transportation.

### Strapping Tensioner

- For straps up to 22mm wide
- SKU: NTEN



### Lashing Tensioner

- For lashing up to 42mm wide
- SKU: NTEN32MUL



### Ratchet Strapping Tensioner

- With cutter
- SKU: NRATD



## Dispensers

Dispensers assist with the even distribution of the strapping during application.

### Strapping Dispenser

- SKU: NSTDISPD





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