

A large, dark blue, horizontally-ribbed garage door is the central focus of the image. It is set against a light blue wall. In the foreground, there is a concrete driveway and some green plants. The text "Guarantee and prescriptions 2024" is overlaid on the left side of the garage door in a white, sans-serif font.

# Guarantee and prescriptions 2024

**A short guide on how to handle and process Epco door panels to optimize integration of Epco panels into high quality sectional doors.**



## Guarantee and prescriptions 2024

### Care for our panels.

We have composed this practical guide to share our know-how and experience in working with and handling our sectional door panels. This will increase awareness and proper care of our product, what should result in preventing any unnecessary damage and assuring top quality of the panels to be integrated in high quality sectional doors.

If you might have any question or remark after reading this “Guarantee and Prescriptions” booklet, please do not hesitate to contact us: [support@repanels.com](mailto:support@repanels.com)

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## **Our guarantee.**

Our guarantee covers panels only in their original colour and installed with appropriate and prescribed hardware components. When applied, our guarantee is limited to the value of the panels as invoiced by Epco. The guarantee period starts on the production date of the panels.

## **Foam adherence.**

We guarantee our panels against delamination (separation of the foam from the steel) for a period of 5 years, with the restriction of not being exposed to temperatures above 50°C.

## **Protection film.**

The protection film covering both faces of the panels must be removed immediately after the installation of the door, and this latest six months after the panel production date. After this time, the paint, or the PVC film (wood and inox imitations) can be damaged during the removal of the protection film.

Furthermore, PVC and Deep Matt colours must be stocked inside a dry place, otherwise condensation and glue deposit can occur under the protection film.

## **Colour.**

Climate can impact the colour with time. The original colour is guaranteed for 1 year and it is recommended to use the panels according to FIFO (First In, First Out) method.

Colour codes used to specify Epco standard RAL colours are our version of a colour, it is not an exact match to official RAL colours.

## **Painting.**

As the process of painting panels could change the composition of the panel, warranty is voided. The standard paint used on inside of Epco panels is not meant to be painted. Paint does not adhere properly on the inside coating of our panels.

## **Surface.**

From infinitesimal point of view may a panel always show surface defects (micro-scratches, waves, etc). It is common practice to consider such defects as acceptable if not visible when looking at the panel from a minimal distance of 1.5 m with an angle between 90° (perpendicular to the panel) and 30°. It is recommended to check the surface of panels during production of the door.

## **Rust and coating peeling.**

Our panels are made of cold rolled steel sheets, hot dip galvanized and coated with Polyester paint, Polyurethane paint, or PVC film (wood and inox imitations).

Those products are delivered to us according to the norms EN 10169 or EN 10327 by a dedicated high quality steel supplier.



This means that, except special geographic (above 1000 m altitude, etc), atmospheric (salty, chemicals, etc.) or other circumstances (shocks, contacts with solvents, etc.), our panels are guaranteed against rust and against coating peeling according to this table:

Distance from seaside	<1 km	1-3 km	3-20 km	> 20 km
Polyester paint coating	NG	NG	5 years	10 years
Painted oak	NG	NG	15 years	15 years
Polygrain 9016P + 7016P steel + Deep Matt	NG	10years	20 years	20 years
PVC-coating	NG	NG	2 years	5 years
B & M Series	NG	NG	2 years	2 years

### Bending by wind.

Deflection can happen with high winds and panels exposed to strong winds can suffer damages in the shape (bending). Depending on local rules and regulations, on specific door widths the use of reinforcement wind-struts is recommended. The use of double side-hinges supports the strength of the panels against bending.

The exact number of reinforcement profiles to be used depends on the wind class to be achieved. Sectional door construction should withstand the differential pressure generated by wind. Classification details are specified in EN 12424: 2002.

The requirement applies only to the door in closed position, the requirement does not apply to the possibility of opening and closing under wind load.

### Deflection by temperature difference.

Panels consists of double skin galvanized and coated steel sheets and an insulating rigid foam core. When temperature difference of the cover sheets on the opposite sides occurs, the thermal elongation on both sides could differ and the panels might flex. This is a natural process, and it does not constitute as a product defect. The deflection increases with the temperature difference. Therefore, deflection is bigger when dark colours are used or when the door is south facing. This phenomenon cannot be eliminated but can be limited using reinforcements or limited temperature peaks.

Dark colors should not be used for double skinned steel doors that are exposed to the sun, as possible section deflection may damage the door.

7232	10961
7571	11300
7910	11639
8249	11978
8588	12317



### **Calculation of the U-value of a door.**

For proper calculation of the U-value of a sectional door, all the separate U-values of the panels, bottom seal, sides seals, top seal and possible windows or pass-door need to be brought into the calculation. With this information, the U-value can be calculated according (to EN 13241/ attachment B) following the formula:

$$\frac{((\text{total m}^2 \times \text{U-value panel}) + (\text{PSI value panel} \times ((\text{number of panels}-1) \times \text{width of door}))}{\text{total m}^2}$$

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## **Cleaning instructions.**

Proper cleaning of the surface of Epco panels, will ensure a long life span and high-quality appeal/appearance of the panel in the door.

### **Paint-coated panels.**

Panels should be cleaned with neutral soap and water by using a soft cloth (not abrasive), before appropriate rinsing and drying. To maintain the quality of the panels, it is recommended to clean the door regularly.

### **PVC-coated panels.**

PVC-coated panels (Golden Oak, Dark Oak, Mahogany, Rustical, White, Inox, etc.) can be cleaned with clear water or with neutral detergent content and must be rinsed thoroughly with cold water and completely dried afterwards.

Avoid oxidizing detergents (e.g., chlorine) or organic solvents like acetone, methyl ethyl ketone – sometimes mixed with alcohol – ethyl acetate, chlorinated solvents, aromatic solvents like Toluene or Xylene. Always read the composition of detergents, do not use products of an unknown composition. Certain substances such as, for example, nail polish, ink, tar, bitumen) may penetrate the surface of the film, causing a permanent stain.

Exposure to various chemicals, detergents, oils, adhesives, smoke, high pressure washing, steam cleaning, extreme weather conditions, periods of immersion in water, air pollution (in particular in the presence of Sulphur dioxide and development of the consequent acid; nearby incineration plants and industrial structures and areas that are source of emissions into the atmosphere of special gas-es, acids, alkalis, heat and salts), damage caused by birds or animal urine, areas constantly sprayed with water (near seas, lakes and rivers or subject to periodic watering) or areas where smoke and dust, metallic powder, stone dust, calcium sulphate and chemical agents may cause deterioration of the product.

It is recommended to clean the panels every third month with clear water (cold or lukewarm) and a clean and soft cloth to remove any aggressive contaminants. It is the responsibility of Epco clients to inform the end user about those maintenance conditions and to produce written evidence that he's been informed. It could be integrated in the user guide left with the door.

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## Implementation.

From their production date, panels must be used for door production within 6 months.

After this time, no claim will be accepted.

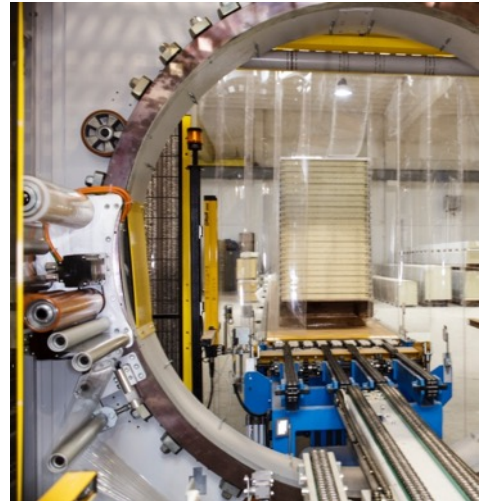
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## Packaging.

There are four types of panel packaging available:

### Wooden pallet 12500 mm long

Rafters of 75 x 75 mm are placed laterally every 1,5 m on which other rafters of 80 x 55 mm (are placed lengthways under a 12 mm thick wooden plate. This forms a pallet on which panels are stacked up. A protective polystyrene plate is placed between the panels and the wooden plates. A wooden plate 12 mm thick covers the pallet. The pack is finally wrapped with plastic film.



### Wood + Isomo

Polystyrene blocks of 60 x 200 x 500 or 610 mm are placed under the pack every 2 m. On those blocks, wooden plates 12 mm thick are used as a base to stack up the panels. Same wooden plates are placed on the top of the pack. A protective polystyrene plate is placed between the panels and the wooden plates. The pack is finally wrapped with plastic film.

### Double Isomo

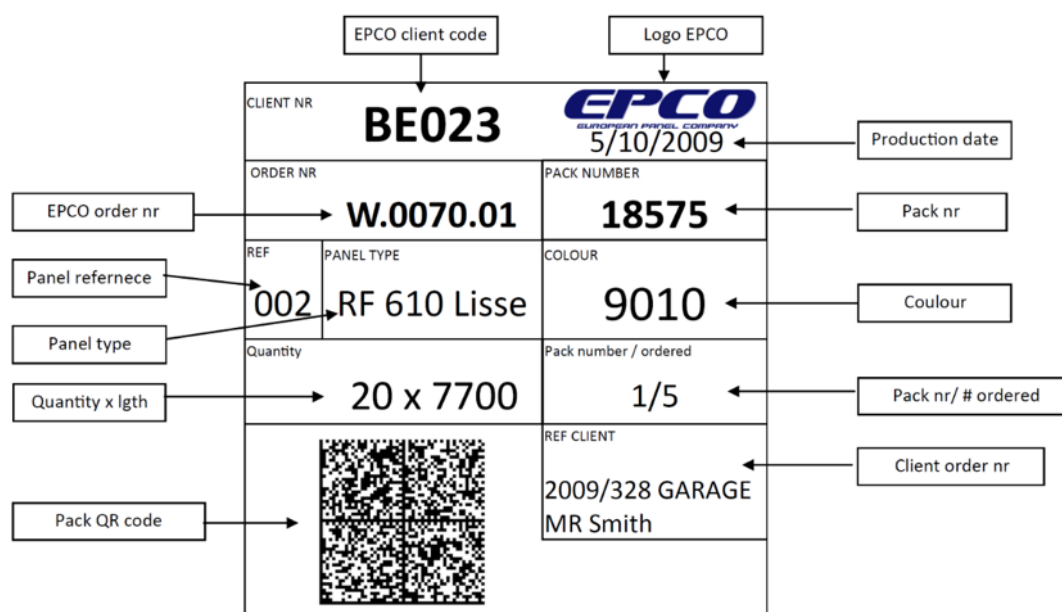
Polystyrene blocks of 60 x 200 x 500 or 610 mm are placed under the pack every 2 m. On those blocks, 2 polystyrene plates 20 mm thick are used as a base to stack up the panels. A protective polystyrene plate is placed on top of the panels. The pack is finally wrapped with plastic film.

### Isomo

Polystyrene blocks of 60 x 200 x 500 or 610 mm are placed under the pack every 2 m. On those blocks, polystyrene plates 20 mm thick are used as a base to stack up the panels. The pack is finally wrapped with plastic film.

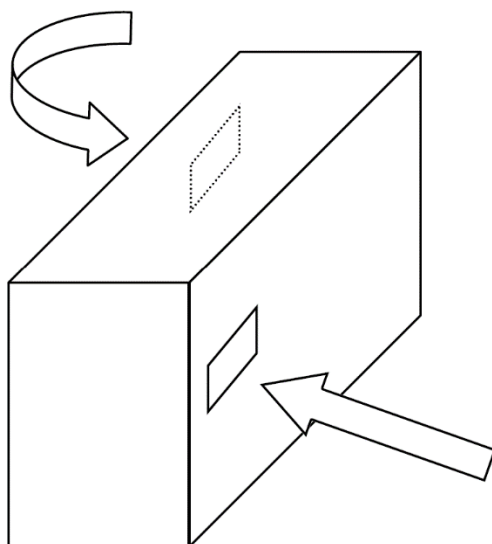
## Labels.

A label is stuck on each end of the packs. As shown on the following example, it indicates:



## Markings.

To ensure its traceability, each panel is marked on the outside with date and time of production.



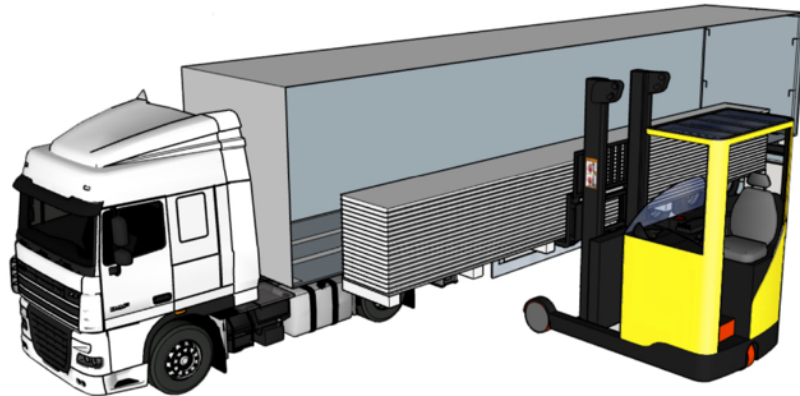
## Loading.

Depending on the selected packaging and the number of panels per pack, the number of packs possible to load changes. Loading in the EpcO production sites can be done from the

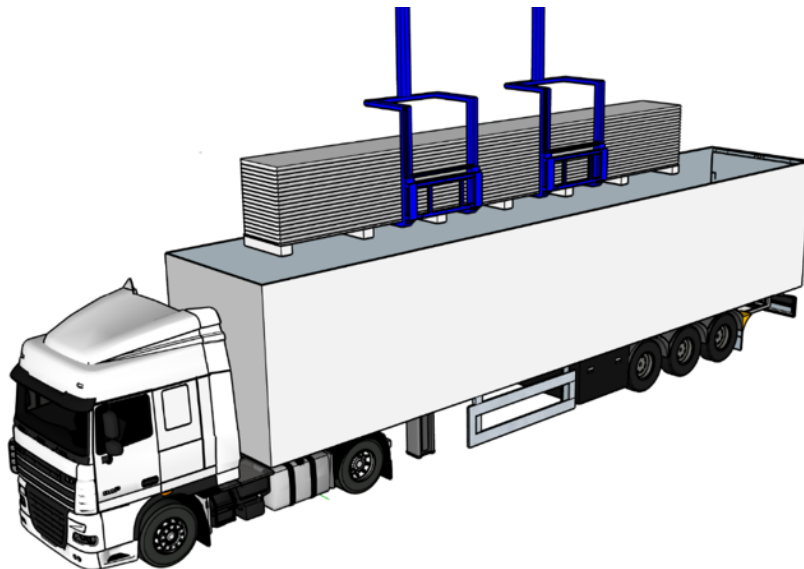




top by means of an open-top truck or laterally, from the side, for panels < 8 m long.  
Loading from the back is not possible.



**Side loading of panels (<8 m)**

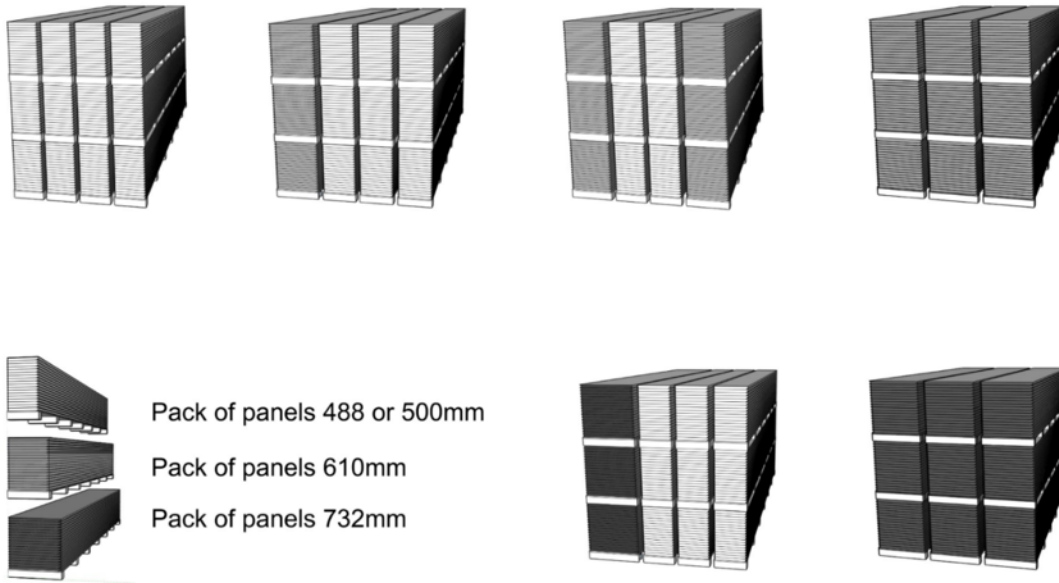


**Top loading of panels in Epcos**

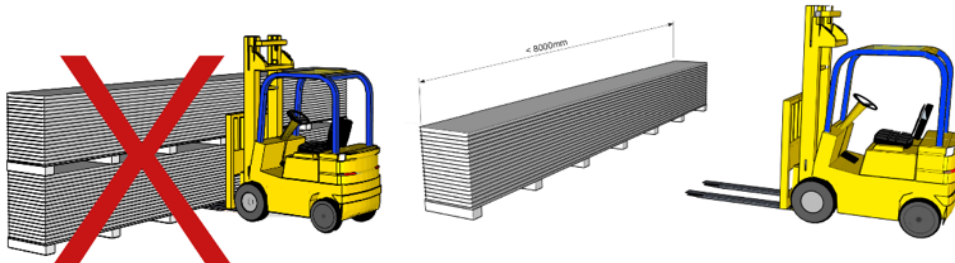


**Not possible: loading from the back**

Depending on the width of the panels, 3 or 4 packs can be loaded next to each other in a truck. See the loading combinations below.

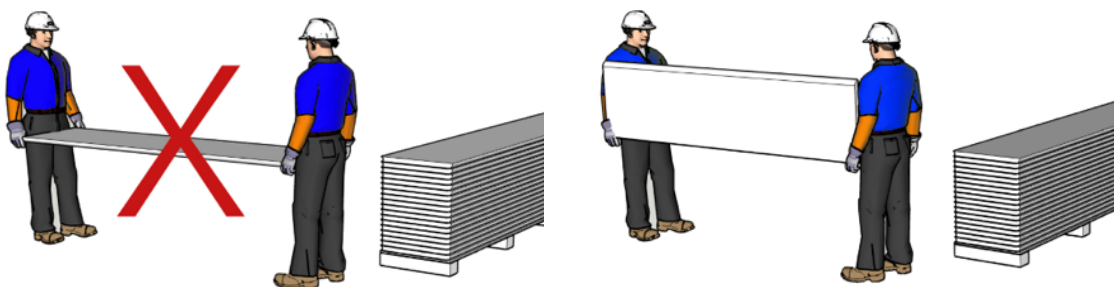


When handling panels, it is important to handle with care. The pallets may only be unloaded and transported individually. Unloading method limited to a maximum of 8 meters, otherwise a fork widening with additional forks must be used.



## Handling.

In any case, when picking up the individual panels from a package, care must be taken to ensure that deformations, deflections, and high pressure loads on the elements are absolutely avoided! The panels should be transported upright:



## Storage.

Packs can be stacked up on each other (maximum 3 packs). When stored outdoors, the panels must be protected against precipitation, storms, and dirt. Avoid condensation. The packages must be stored with a longitudinal incline so that any water that may have penetrated between the panels can run off.

For longer storage times outside, the panels should be covered with a textile sheet. Storing area must have good ventilation. Do not put anything on packs and prevent people from walking on it. Failure to comply may result in discolouration of the finish coating. Guarantee of panels ends when storage is not done properly as recommended.

## Disclaimer.

Epco will take no responsibility or liability whatsoever for any errors or omissions in the content of this technical handbook. Always check the information with applicable local laws and regulations, and if there is any conflict, please consult us.

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## Matching hardware products FlexiForce.



FlexiForce has developed the following products for the EPCO garage door panels (R-Series):

**Hinges - series 421 (width 60mm, distance of 40mm between holes)**

421 HZ	: galvanized intermediate hinge
421 HZW	: galvanized and white lacquered RAL 9010 intermediate hinge
421 FZ	: galvanized side hinge for double roller carrier
421 FZW	: galvanized and white lacquered RAL 9010 side hinge for double roller carrier
421 RZ10R	: galvanized side hinge
421 RZW10R	: galvanized and white lacquered RAL 9010 side hinge
421CZ10R	: complete (with roller carrier) galvanized side hinge
421CZW10R	: complete (with roller carrier) galvanized and white lacquered RAL 9010 side hinge

**Hinges - series 422 (width 70mm, distance of 45mm between holes)**

422 HZ	: galvanized intermediate hinge
422 HZW	: galvanized and white lacquered RAL 9010 intermediate hinge
422 RZ10R	: galvanized side hinge
422 RZW10R	: galvanized and white lacquered RAL 9010 side hinge
422 CZ10R	: complete (with roller carrier) galvanized side hinge
422 CZW10R	: complete (with roller carrier) galvanized and white lacquered RAL 9010 side hinge

**End caps**

40 PM 500L	: single left cap, galvanized, distance of 45mm between holes, for 500mm panel
40 PM 500R	: single right cap, galvanized, distance of 45mm between holes, for 500mm panel
40 PM 610L	: single left cap, galvanized, distance of 45mm between holes, for 610mm panel
40 PM 610R	: single right cap, galvanized, distance of 45mm between holes, for 610mm panel
40 PS 500L	: single left cap, galvanized, distance of 40mm between holes, for 500mm panel
40 PS 500R	: single right cap, galvanized, distance of 40mm between holes, for 500mm panel
40 PS 610L	: single left cap, galvanized, distance of 40mm between holes, for 610mm panel
40 PS 610R	: single right cap, galvanized, distance of 40mm between holes, for 610mm panel
40 PS 500WL	: single left cap, white, distance of 40mm between holes, for 500mm panel
40 PS 500WR	: single right cap, white, distance of 40mm between holes, for 500mm panel
40 PS 610WL	: single left cap, white, distance of 40mm between holes, for 610mm panel
40 PS 610WR	: single right cap, white, distance of 40mm between holes, for 610mm panel
40 PL 500L	: double left cap, galvanized, distance of 45mm between holes, for 500mm panel
40 PL 500R	: double right cap, galvanized, distance of 45mm between holes, for 500mm panel
40 PL 610L	: double left cap, galvanized, distance of 45mm between holes, for 610mm panel
40 PL 610R	: double right cap, galvanized, distance of 45mm between holes, for 610mm panel

**Bottom seal**

1035QSE	: Bottom seal to put directly into the EPCO panel
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## Matching hardware products FlexiForce 60mm

Specific parts for EPCO SERIES 60mm:

### Hinges

- 421 RZ 60 : galvanized side hinge
- 421 FZ 60 : galvanized side hinge for double roller carrier
- 421 HZ 60 : galvanized intermediate hinge

### End caps

- 60 PS 500L : single left cap, galvanized for 500mm panel
- 60 PS 500R : single right cap, galvanized for 500mm panel
- 60 PS 610L : single left cap, galvanized for 610mm panel
- 60 PS 610R : single right cap, galvanized for 610mm panel
- 60 PS 500 WL : single left cap, white for 500mm panel
- 60 PS 500R : single right cap, white for 500mm panel
- 60 PS 610L : single left cap, white for 610mm panel
- 60 PS 610R : single right cap, white for 610mm panel

### Bottom seal

- 1035QSE60 : QuickSeal, bottom seal to put directly into the 60mm EPCO panel

## Matching hardware products Doco.

### Hinges



230105	Side hinge fingerprotection Epco without roller carrier
230106	Side hinge fingerprotection Epco Ral9016 without roller carrier
25736	Side hinge/carrier fingerprotection Epco Ral9016
25167	Side hinge Epco for duplex roller Ral9016
25165	Side hinge Epco Ral9016 duplex roller with silent roller ca
25735	Intermediate hinge finger protection Epco Ral9016

#### Screws

14020	Self-tapping screw 6.3x16 RAL9016
150113	Self-drilling screw 6.3x16 mm, Torx-T30, galvanized
150115	Self-drilling screw 6.3x16 mm, Torx-T30, white

#### End caps

217032	Endcap left Epco 40-500mm galvanized
217033	Endcap right Epco 40-500mm galvanized
217034	Endcap left Epco 40-500mm Ral9016
217035	Endcap right Epco 40-500mm Ral9016
217036	Endcap left Epco 40-610mm galvanized
217037	Endcap right Epco 40-610mm galvanized
217038	Endcap left Epco 40-610mm Ral9016
217039	Endcap right Epco 40-610mm Ral9016
217080	Endcap left Epco 40-555mm galvanized
217081	Endcap right Epco 40-555mm galvanized
217082	Endcap left Epco 40-555mm Ral9016
217083	Endcap right Epco 40-555mm Ral9016
217084	Endcap left Epco 40-625mm galvanized
217085	Endcap right Epco 40-625mm galvanized
217086	Endcap left Epco 40-625mm Ral9016
217087	Endcap right Epco 40-625mm Ral9016
217088	Endcap Left Epco h=820mm RAL9016
217089	Endcap Right Epco h=820mm RAL9016
217090	Endcap left double Epco 40-500mm galvanized
217091	Endcap right double Epco 40-500mm galvanized
217092	Endcap left double Epco 40-555mm galvanized
217093	Endcap right double Epco 40-555mm galvanized
217094	Endcap left double Epco 40-610mm galvanized
217095	Endcap right double Epco 40-610mm galvanized
217096	Endcap left double Epco 40-625mm galvanized
217097	Endcap right double Epco 40-625mm galvanized

#### Bottom seal

805900	Bottom astragal for EPCO Panel on roll 50 m.
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## **Matching hardware products Pasedo.**

#### Hinges

42206035	: galvanized side hinge
42206035-9016	: powder coated side hinge RAL9016





42206035Q	: galvanized quiet side hinge
42206035M	: galvanized middle hinge
42206035M-9016	: powder coated middle hinge RAL9016
42206035DBL	: galvanized side hinge for double roller
42206035DBL-9016	: powder coated side hinge for double roller RAL9016
42207035	: galvanized side hinge
42207035-9016	: powder coated side hinge RAL9016
42207035M	: galvanized middle hinge
42207035M-9016	: powder coated middle hinge RAL9016

#### **End caps**

450760500L-EP	: single end cap, left, galvanized, for panel 500mm
450760500R-EP	: single end cap, right, galvanized, for panel 500mm
450760555L-EP	: single end cap, left, galvanized, for panel 555mm
450760555R-EP	: single end cap, right, galvanized, for panel 555mm
450760610L-EP	: single end cap, left, galvanized, for panel 610mm
450760610R-EP	: single end cap, right, galvanized, for panel 610mm
450760500L-EP-9016	: single end cap, left, powder coated RAL 9016, for panel 500mm
450760500R- EP-9016	: single end cap, right, powder coated RAL 9016, for panel 500mm
450760555L- EP-9016	: single end cap, left, powder coated RAL 9016, for panel 555mm
450760555R- EP-9016	: single end cap, right, powder coated RAL 9016, for panel 555mm
450760610L- EP-9016	: single end cap, left, powder coated RAL 9016, for panel 610mm
450760610R- EP-9016	: single end cap, right, powder coated RAL 9016, for panel 610mm
450770500L-EP	: single end cap, left, galvanized, for panel 500mm
450770500R-EP	: single end cap, right, galvanized, for panel 500mm
450770555L-EP	: single end cap, left, galvanized, for panel 555mm
450770555R-EP	: single end cap, right, galvanized, for panel 555mm
450770610L-EP	: single end cap, left, galvanized, for panel 610mm
450770610R-EP	: single end cap, right, galvanized, for panel 610mm
450770500L-EP-9016	: single end cap, left, powder coated RAL 9016, for panel 500mm
450770500R- EP-9016	: single end cap, right, powder coated RAL 9016, for panel 500mm
450770555L- EP-9016	: single end cap, left, powder coated RAL 9016, for panel 555mm
450770555R- EP-9016	: single end cap, right, powder coated RAL 9016, for panel 555mm
450770610L- EP-9016	: single end cap, left, powder coated RAL 9016, for panel 610mm
450770610R- EP-9016	: single end cap, right, powder coated RAL 9016, for panel 610mm

#### **Double end caps**

4507150500L-EP	: double end cap, left, galvanized, for panel 500mm
4507150500R-EP	: double end cap, right, galvanized, for panel 500mm
4507150555L-EP	: double end cap, left, galvanized, for panel 555mm
4507150555R-EP	: double end cap, right, galvanized, for panel 555mm
4507150610L-EP	: double end cap, left, galvanized, for panel 610mm
4507150610R-EP	: double end cap, right, galvanized, for panel 610mm
4507150500L-EP-9016	: double end cap, left, powder coated RAL 9016, for panel 500mm
4507150500R- EP-9016	: double end cap, right, powder coated RAL 9016, for panel 500mm
4507150555L- EP-9016	: double end cap, left, powder coated RAL 9016, for panel 555mm
4507150555R- EP-9016	: double end cap, right, powder coated RAL 9016, for panel 555mm
4507150610L- EP-9016	: double end cap, left, powder coated RAL 9016, for panel 610mm
4507150610R- EP-9016	: double end cap, right, powder coated RAL 9016, for panel 610mm

#### **Seal**

3106-EP	: bottom seal, inserted directly into EPCO panel
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## Matching hardware products ConDoor.

### Hinges

3132	Roller holder single white
3133	Roller holder double white
3139	Side hinge EPCO white CS40
3228	Side hinge EPCO fingersafe white CS45
3140	Intermediate hinge EPCO fingersafe white CS40
3205	Side hinge EPCO fingersafe galvanised CS40
3206	Side hinge EPCO fingersafe galvanised CS45
3218	Roller holder single galvanised
3219	Roller holder double galvanised
3220	Intermediate hinge EPCO fingersafe galvanised CS45
3221	Intermediate hinge EPCO fingersafe galvanised CS40

### End caps

0590L	End cap fingersafe EPCO single Left 500/40/white
0590R	End cap fingersafe EPCO single Right 500/40/white
0591L	End cap fingersafe EPCO single Left 555/40/white
0591R	End cap fingersafe EPCO single Right 555/40/white
0592L	End cap fingersafe EPCO single Left 610/40/white
0592R	End cap fingersafe EPCO single Right 610/40/white
0593L	End cap fingersafe EPCO single Left 625/40/white
0593R	End cap fingersafe EPCO single Right 625/40/white
0594L	End cap fingersafe EPCO single Left 900/40/white
0594R	End cap fingersafe EPCO single Right 900/40/white
0595L	End cap fingersafe EPCO double Left 500/40/white
0595R	End cap fingersafe EPCO double Right 500/40/white
0596L	End cap fingersafe EPCO double Left 555/40/white
0596R	End cap fingersafe EPCO double Right 555/40/white
0597L	End cap fingersafe EPCO double Left 610/40/white
0597R	End cap fingersafe EPCO double Right 610/40/white
0598L	End cap fingersafe EPCO double Left 625/40/white
0598R	End cap fingersafe EPCO double Right 625/40/white
3471L	End cap fingersafe EPCO single Left 500/40/galvanised
3471R	End cap fingersafe EPCO single Right 500/40/galvanised
3473L	End cap fingersafe EPCO single Left 610/40/galvanised
3473R	End cap fingersafe EPCO single Right 610/40/galvanised
3475L	End cap fingersafe EPCO single Left 900/40/galvanised
3475R	End cap fingersafe EPCO single Right 900/40/galvanised
3481L	End cap fingersafe EPCO double Left 500/40/galvanised
3481R	End cap fingersafe EPCO double Right 500/40/galvanised
3483L	End cap fingersafe EPCO double Left 610/40/galvanised
3483R	End cap fingersafe EPCO double Right 610/40/galvanised
3485L	End cap fingersafe EPCO double Left 900/40/galvanised
3485R	End cap fingersafe EPCO double Right 900/40/galvanised

### Seal

3054	Bottom seal residential 25mm Epc fitting
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