

## Washing

The washing instructions below apply to the cleaning of all CurTec packaging products that are made of polyethylene and polypropylene:

Best results will be achieved with a washing installation that is equipped with spray nozzles or a so-called Ultra-Sonic installation.

Best qualified detergent is a low-foaming alkaline substance with a PH-value of 10 to 12 (solvents.)

The recommended temperature of the washing water lies between 40°C and 50°C.

The temperature of the rinsing water can only be up to 65°C.

Washing at maximum temperature can only take up to 35 seconds and rinsing at maximum temperature only up to 20 seconds. It prevents the plastic from warming up and shrinking.

Increased drying of products can be effected by means of applying cold air. If warm air will be used the drying can only last up to 30 seconds at a maximum temperature of 65°C.

The blowing and drying part of the installation needs to be adjusted to the product, so those difficult spots of the kegs can also be dried.

For specific technical information CurTec would like to refer to the various suppliers of washing installations.

**Attention!** Check the thermostat and programmed times of your equipment regularly.



## **01** Close



The UN marking on a drum is only valid if the following closing instruction is applied.

The following instruction applies to both Packo with innerseal and lid and Packo with two-component lid. To close Packo with two-component lid you can start at point 2.



1. Hold the container firmly with one hand. Place the innerseal on the container with the other hand. Start on one side and then roll down the innerseal on the edge. That way surplus air can escape.



2. Place the lid on the container. Make a quarter turn clockwise till it stops. The container is now completely closed.



3. Check if the teeth of the tamper evident strip exactly fit the cavities of the container. Only then the sealing is tamper evident.



# 02 Open

The following instruction applies to both Packo with innerseal and lid and Packo with two-component lid. For the opening of a Packo with a two-component lid, point 3 does not apply.



1. Hold the container firmly with one hand. Take the lip of the tamper evident strip with your other hand and tear it off counterclockwise. If the strip is removed the lid is ready to be screwed off.



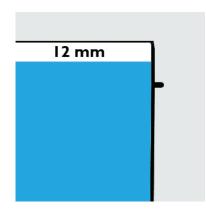
2. Hold the lid firmly, make a quarter turn counterclockwise then lift it off the container.



3. Take the innerseal between your thumb and index finger and pull it out of the container.



## 03 Use



### **Filling**

The maximum filling temperature of the contents is 70°C. The contents must have cooled to 30°C before Packo can be closed and stacked. A container can be filled to a maximum of 12 mm below the rim.

### **Freezing**

Packo is manufactured of a special PE blend and therefore suitable for temperatures until -25°C. If handled at temperatures below -5°C, avoid sudden impact on the packaging.



### Air transport

During air transport, the pressure drops inside a plane's cargo hold, which causes air inside a package wanting to escape. After landing, normal atmospheric pressure prevails again which, depending on the amount of escaped air\*, can cause the drum wall to cave in.

CurTec packaging has not been designed to compensate large pressure differences short-term. The construction is such that a correctly closed packaging alllows air to escape relatively fast, but does not allow it to return easily.

Since CurTec has no influence on the use of its packaging by end users, they advise to test each transport mode.

It remains the responsibility of end users to verify whether a package and content comply with relevant transport regulations. CurTec refers to the regulations mentioned in the UN certificates.

\* The quantity depends on the content type (the shape and air between) and the filling degree/ level



## **04** Static load

When stacking packaging for storage in e.g. a warehouse or cold store it is important to know what the maximum stacking load can be on the bottom container.

The stacking load depends strongly on: the container weight, the number of containers to be stacked, the weight of interlayers and pallets, surrounding temperature, the duration of the load and the surface beneath the bottom containers.

The table below shows the maximum stacking load (in kg) at a given surrounding temperature during a certain period of time placed on a flat and closed surface or pallet.

Temp.	Months	4303	4305	4306	4310	4313	4315	4320	4325
≤ 0° C	0,5	23	23	22	22	22	92	92	92
	2	21	21	20	20	20	80	80	80
	6	20	20	19	19	19	71	71	71
	12	19	19	18	18	18	63	63	63
15° C	0,5	18	18	17	17	17	59	59	59
	2	17	17	16	16	16	53	53	53
	6	16	16	15	15	15	44	44	44
	12	15	15	14	14	14	40	40	40
25° C	0.5	16	16	15	15	15	44	44	44
	2	15	5	14	14	14	39	39	39
	6	14	14	13	13	13	34	34	34
	12	13	13	12	12	12	30	30	30
35° C	0,5	14	14	13	13	13	33	33	33
	2	13	13	12	12	12	29	29	29
	6	11	11	10	10	10	25	25	25

**Attention!** The weights mentioned in the table have been established after simulation and can only serve as indications. CurTec recommends users to perform tests at all times.

**Attention!** This data is only relevant if Packos are placed in non-supporting cardboard boxes. The total weight of Packos placed on a pallet may never exceed the carrying capacity of that pallet.

On the basis of the table the number of containers that may be stacked can be calculated. It is the stacking load mentioned reduced by the carrying part of the pallet(s) and the interlayers, divided by the content weight. This number, with figures behind the comma smaller than eight, rounded off + 1 = total number of containers.



### **Example**

Packo 4305, 2 months, 25° C. The bottom Packo can carry 15 kg according to the table. At a total weight of 0.75 kg (content + packaging) 20 Packo's (15 kg/ 0.75) can be stacked on top of the bottom container. So, 21 Packos can be stacked on top of each other on a pallet.

In case of an unspecific time or temperature please look in the next appropriate column. If you want to know what the stacking load is with shorter periods of time, the table in instruction 5 Dynamic load can be of service: the values can be applied without safety factors for transport.

### **Attention points**

Before stacking the containers the temperature of the contents must equal or be lower than the surrounding temperature.

The maximum stacking time is reduced considerably at a temperature higher than 35°C. The stacking load in the table amounts at 50°C to only 75% of the value last mentioned and at a temperature of 60°C to only 50%.

In case a stack is higher than 2.5 metres the floor angle cannot be more than 0.5%.

CurTec strongly advises against stacking the containers horizontally, lying on the side. Due to a heavy and long-term load and especially a high temperature the containers can distort.



# 5 Dynamic load

Before stacking Packos for transport it is important to know what the maximum stacking load on the bottom container of the stack is. With transport this stacking load is called dynamic load and can be found by dividing the admissible static load by a so-called safety factor. These factors are:

3 for air transport2 for road transport1,8 for rail transport1,3 for maritime transport

The static load mentioned in the table depends strongly on the temperature and time indicated: 5°C is the temperature for cooled transport, 30°C is the temperature for the average transport by road or inland waterways and 40°C is the temperature for transport in warmer surroundings. In case of an unspecific time or temperature, below 40°C, please look in the next appropriate column. In case the temperature rises even more, please be aware that at 50°C the load can only be 75% and at 60°C only 50% of the load at 40°C.

Temp.	Weeks	4303	4305	4306	4310	4313	4315	4320	4325
5° C	0,5	23	23	22	22	22	100	100	100
	1	22	22	21	21	21	92	92	92
	3	20	20	19	19	19	77	77	77
	5	18	18	17	17	17	73	73	73
30° C	0,5	16	16	15	15	15	48	48	48
	1	15	15	14	14	14	44	44	44
	3	14	14	13	13	13	38	38	38
	5	13	13	12	12	12	35	35	35
40° C	0,5	12	12	11	11	11	34	34	34
	1	10	10	9	9	9	33	33	33
	3	9	9	8	8	8	28	28	28

**Attention!** The loads mentioned in the table can only serve as indications. CurTec always advises its customers to perform additional testing.

**Attention!** This data is only relevant if Packos are placed in non-supporting cardboard boxes. The total weight of Packos placed on a pallet may never exceed the carrying capacity of that pallet.

On the basis of the table the number of containers that may be stacked can be calculated. It is the stacking load mentioned divided by the product of the keg weight and the relevant safety



factor. This number, with figures behind the comma smaller than 8, rounded off + 1 = total number of containers.

### **Example**

Packo 4306, 1 week, 30° C, air transport: 14/3 = 4 kg. This is the total load that may be put on the bottom container in the stack. At a weight of 0.7 kg per container it means that 6 containers in total can be stacked (4 kg / 0.7 kg + 1).

### **Attention points**

The containers must by stowed professionally and fixed in a way that makes shifting impossible.

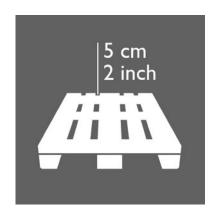
The maximum stacking time will be reduced considerably at temperatures higher than 35° C. The stacking load in the table amounts at 50°C to only 75% of the value last mentioned and at a temperature of 60°C to only 50%.

See instruction 6 (Palletisation) for the choice of pallets.

See instruction 4 (Static load) for storage in a warehouse.



## 06 Palletisation



### **Pallets**

It is important that the first layer is supported by a straight surface and that the pallet itself has an almost closed surface fitted with planks no more than 5 cm apart, which will not distort under a heavy load. Interlayers are necessary to create a solid stack. You could use e.g. a foil with a minimum thickness of 0.02 mm. We advise you not to stack any higher than 2 metres.

In case a pallet is placed on top of a Packo pallet, the surface needs to be flat and solid to avoid pressure points on the top layer. The top (layer) needs to be flat and rigid so it can equally spread the load.



### **Pallet handling**

From a safety point of view CurTec recommends the transport of one pallet at a time. In order not to disturb the stack the fork of the lift truck needs to be kept almost horizontal.

### **Packing**

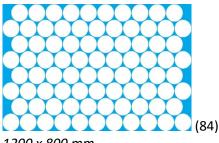
We recommend the use of a shrink wrap which needs to be shrunk around the pallet as well. In addition, the bottom of the pallet needs to be stretched with foil as well. The containers at the base of a stack will carry most of the load and to avoid a collapse they cannot be deformed by overstretching the foil or over-heating the wrap.

Alternatively you can use stretch foil to cover the entire pallet. Please pay attention that you use enough foil to create a stable stack and do not pull the foil too tight in order to avoid deformation of the containers.

### **Pallet schemes**

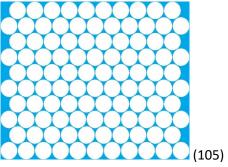
The maximum number of filled containers per layer is:

Art. no's 4303 • 4305 • 4306 • 4310 • 4313



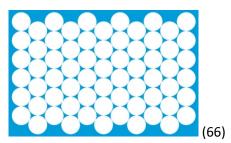
1200 x 800 mm



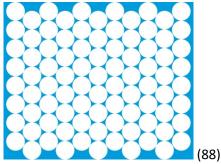


1200 x 1000 mm 48 x 40 inch

### Art. no's 4315 • 4320 • 4325



1200 x 800 mm



1200 x 1000 mm 48 x 40 inch



### **CurTec International**

Spoorlaan Noord 92 5121 WX Rijen The Netherlands



UK & Ireland: +44 20 3514 4624 North America: +1 908 450 98 16 All other countries: +31 88 808 2000



curtec.en@curtec.com

curtec.com

