Manual

Packo

July 2020

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.*

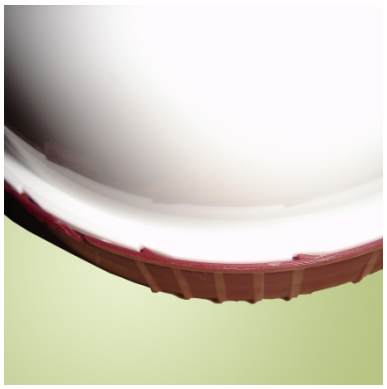
01 Close

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

The following instruction applies to both Packo with inner seal 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 inner seal on the container with the other hand. Start on one side and then roll down the inner seal 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 inner seal and lid and Packo with two-component lid. For the opening of a Packo with a two-component lid, point 3 does not apply.

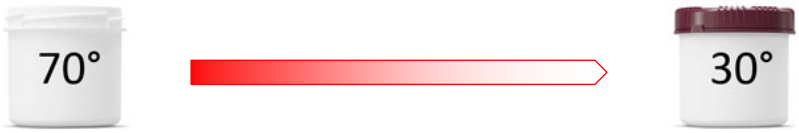
1. Hold the container firmly with one hand. Take the lip of the tamper evident strip with your other hand and tear it off counterclockwise. If the strip is removed the lid is ready to be screwed off.

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

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

03 Use

Filling
The temperature of the content cannot exceed 70°C. The content has to cool down to 30°C before the container can be closed. The drum can be closed according to instruction 1.



Freezing
Packo is made of plastic which is resistant to a minimum temperature of -25°C. As of -5°C, shock load on the containers should be avoided.

Attention! *The volume of containers filled with water-based contents can increase by 10%. The chances that containers will distort are real and it will reduce the stability of a container stack on a pallet. Please maintain a maximum filling level of 90% and test the stability of a pallet stacking.*

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 pressure differences. The construction is such that a correctly closed packaging allows 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 containers for storage in e.g. a warehouse or cold store, it is important to know what the maximum load on the lowest container in a stack can be.

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

The following table shows the maximum stacking load (in kg) at a given ambient temperature, during a certain period of time, for a container placed on a flat, 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	15	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.*

The table allows you to calculate the number of containers that can be stacked: Reduce the stacking weight mentioned with the relevant share of the weight of intermediate layers and divide by the weight of the container with content. This number, with a figure after the decimal point lower than 8, rounded down is the total amount of containers that can be stacked on the lowest container of a stack.

Example
How many 500 ml Packos (art. no. 4305) with a content weighing 3 kg can be stacked on a pallet at 25°C during 2 months?
The relevant weight share of intermediate layers is 3 kg, so (15-3)/0.85 = 14.11. The number of containers that can be stacked on the lowest container is 14.

Attention! *This data is only relevant if containers are not placed in self-supporting cardboard boxes. The total weight of packaging placed on a pallet may never exceed the carrying capacity of that pallet.*

In case of a different duration or temperature, please choose the next appropriate column. For shorter stacking durations, the table of instruction 5 (Dynamic load) can be of service.

Attention points
Before stacking the drums, the temperature of the contents must be equal or lower than the ambient temperature.

The maximum stacking time is reduced considerably at temperatures above 35°C. The stacking load in the table is at 50°C only 75% of the last mentioned value and at 60°C only 50%.

When a stack is higher than 2.5 meters, the floor angle cannot exceed 0.5%.

CurTec strongly discommends stacking containers horizontally, lying on the side.

05 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 transport*
***2** for road transport*
***1.8** for rail transport*
***1.3** for maritime transport*

The stacking weights mentioned in the table below are indicative and depend on temperature and time: 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 a different duration or temperature below 40°C, please choose the next appropriate column. In case of even higher temperature, please consider that the dynamic load is at 50°C only 75% of the last mentioned value and at 60°C only 50%

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 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.*

The table allows you to calculate the number of containers that can be stacked: Reduce the stacking weight mentioned with the relevant share of the weight of intermediate layers and divide by the weight of the container with content. This number, with a figure after the decimal point lower than 8, rounded down is the total amount of containers that can be stacked on the lowest container of a stack.

Example
How many 650 ml Packos (art. no. 4306) with a content weighing 0.7 kg can be transported by air at 30°C during 1 week?
The relevant weight share of intermediate layers is 1 kg, so ((14/3)-1)/0.7 = 5.24. The number of containers that can be stacked on the lowest container is 5.

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.*

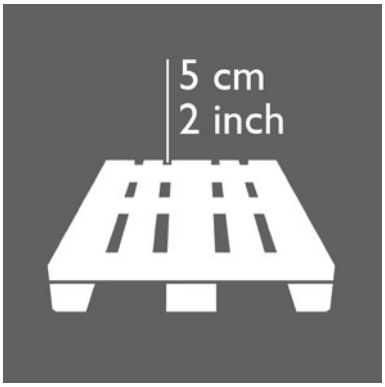
Attention points
When changing transport mode, from storage to shipping or vice versa, the lowest containers of a stack must always be placed highest in a new stack.

The containers must be stowed professionally and fixed in such a way that makes moving impossible.

For the use of pallets, see instruction 6 (Palletization).

For stacking containers in a warehouse, see instruction 4 (Static load).

06 Palletization



Palletization
Each pallet should be fitted with a solid, flat intermediate layer prior to loading. A pallet should have an almost closed surface fitted with planks that are no more than 5 cm/ 2 inches apart. CurTec advises not to exceed a total stacking height of 2 meters.

In case a pallet is placed on top of another pallet, an intermediate layer is required to enable an equal spread of the pressure. This layer should also be solid and flat.

Filled containers are placed on a flat surface and stacked by placing the base of the container in the counter shape of the lid.

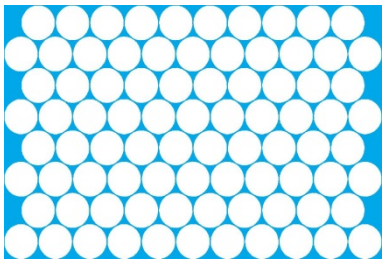
Packing
CurTec recommends the use of a heat shrink pallet cover, which needs to be shrunk around the pallet as well. In addition, the base of the pallet needs to be stretched with foil as well. The containers at the base of a stack will carry most of the load and to avoid a collapse they cannot be deformed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

Attention! *The total load on the bottom container of a stack may never exceed the maximum loads as indicated in the tables of instructions 4 and 5.*

Pallet handling
From a safety point of view, CurTec recommends to transport only one pallet at a time with a fork lift truck. In order not to disturb the stack, the forks of the truck need to be kept almost horizontal.

Pallet schemes
The maximum number of filled containers per layer is:

Art. No. 4303 ▪ 4305 ▪ 4306 ▪ 4310 ▪ 4313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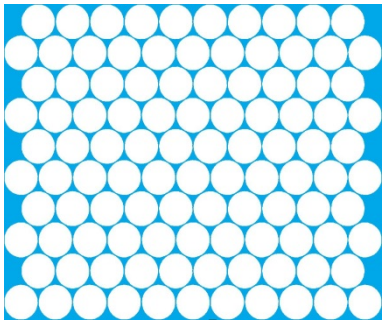
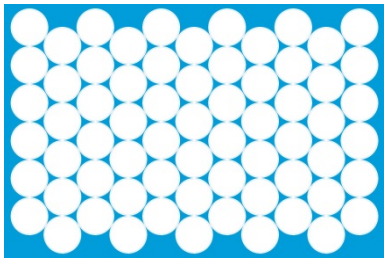

(105)
1200 x 1000 mm
48 x 40 inch

Art. No. 4315 ▪ 4320 ▪ 4325


(66)
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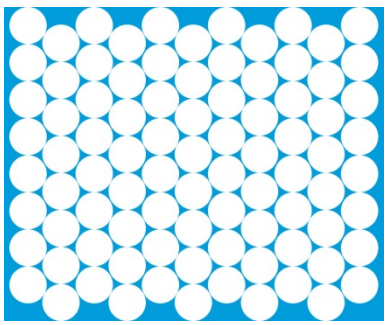
(88)
1200 x 1000 mm
48 x 40 inch

Disclaimer
CurTec manufactures packaging material for a wide range of purposes. This declaration is restricted to the packaging material as it leaves the production facility. CurTec has neither control over final end use of the product nor over processing conditions. It is therefore the responsibility of the end user to check compliance with the relevant regulations and to validate material performance in the end application through proper end use testing.

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