

## Conditioning period in hours for cardboard

Cardboard is made of natural wood fibres and is therefore a living material. Wood (fibres) can very easily absorb and release moisture from the air. This phenomenon causes the fibres to swell or shrink. Sticking doors and distorted planks during damp periods are examples of this.

This shrinking and swelling causes all kinds of unpleasant changes in the cardboard boxes, like wrinkled edges, size changes, distortion, and even reduced rubbing strength.

Our cardboard boxes are produced with a relative humidity of  $\pm 50\%$ . If the air moisture during processing is close to this value, you should not experience any processing problems.

People often forget (especially in the winter) that pallets that are stored in cold places must be brought to room temperature in their closed packaging, near the packaging machine. If not, there is a risk that (invisible) water condenses on the cardboard boxes, and this can affect the flatness of the cardboard to a great extent, causing all kinds of serious processing problems.

If excess boxes are brought back to the warehouse, it is very important to package the goods in a moisture proof packaging first.

Below, you will find a table with the recommended conditioning period according to the volume and temperature difference.

As a rule: a 400 kg pallet should be left at least 24 hours in a heated room next to the packaging machine to bring it to room temperature, without opening the packaging.

It's only a small effort, but it's certainly worth it!

Difference between room temperature and the temperature of the cardboard boxes (in hours)							
	5 °C	8 °C	10 °C	15 °C	20 °C	25 °C	30 °C
<i>Full flat packed pallet</i>	12	18	23	33	46	63	84
<i>Half flat packed pallet</i>	7	12	17	26	36	41	64
<i>Full pallet packaged in intermediate boxes</i>	6	9	12	17	23	32	42
<i>Half pallet packaged in intermediate boxes</i>	4	6	9	13	18	21	32