



Why do products (especially on casting paper) look different in winter and summer?

Or

Why do we have storage guidelines?

We take great pride at Gaska Tape for making a nice looking product, but depending on the changing environmental conditions, what starts out looking nice may not end up that way. What can happen? It is said a picture is worth a thousand words, so here are a few along with explanations.

Humidity changes – In Indiana, we know well how humid summer can be. But did you know that paper actually gets heavier and longer when the fibers absorb moisture? Conversely, when paper is exposed to heat (such as it sees in our foam manufacturing process), moisture is removed from the fibers and the paper shrinks. The net effect is that what starts as a perfectly wound roll, can end up with casting paper “cockles” as the paper tries to grow under high humidity conditions, but the foam and adhesive bonds with the paper constrain it (see Fig. 1 & 2).



Fig. 1 – Newly made roll

Fig. 2 – Humidity cockles

One optional improvement we offer is a 7 mil clay coated casting paper (standard on our V700 Series) which is much more humidity resistant than a typical 5 mil supercalendared casting paper. Another option, especially good for die cut parts, is a polyethylene coated kraft paper or board where the plastic coating improves the dimensional stability of the release liner.



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Temperature changes – Here in Indiana, the winters can be quite cold. In the early days at Gaska Tape, we used to store some of our raw materials in an unheated warehouse. We found that sometimes we ended up with quality problems for doing this. Our first solution was to build a “heat room” to more quickly bring the materials back into the normal temperature range so we could use them without problems. Overall that idea worked, but it created new problems with additional logistics/waiting times. When we underwent the next facility expansion, we included enough storage room for all materials. That solved our needs, but we still heard occasionally from customers about materials that didn’t look quite right, especially when things can also happen in shipment beyond our control. For example, if the material gets very cold, foams, like all plastic materials, will contract. On those occasions where a casting paper is growing due to humidity gains and the foam and adhesive bonds constrain the paper, many convoluted shapes can be observed. Fortunately, much of this is reversed when the product recovers back to normal temperature. See figures 3, 4 & 5 below



Fig. 3 – After cold exposure



Fig. 4 – Side view after cold



Fig. 5 – Normal, one hour later

So there you have it, this is why we publish our Storage Guidelines for Temperature: 70F +/- 20F and Relative Humidity: 40 +/- 30 %. For further information on Gaska products, see our website at [www.gaska.com](http://www.gaska.com)