

TECHNICAL BULLETIN 8.3

Warehousing and printing of Avery Dennison® products

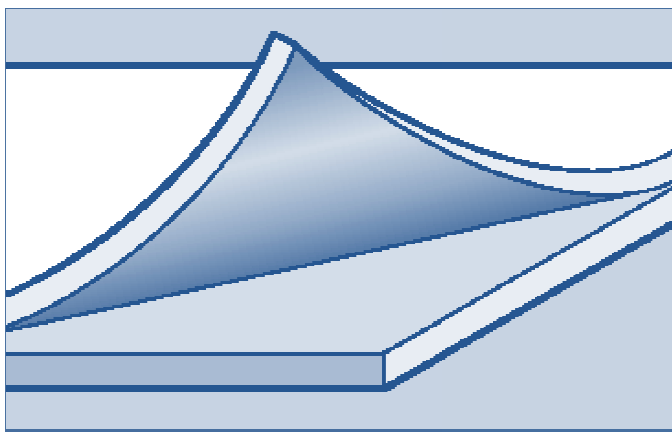
issued: 10/2015

The three-layer composition of self-adhesive materials — **print carrier (paper or film), adhesive, silicone paper** — places these products among the best and most specialized products to be used by the printing industry.

Such products must always be handled with the utmost care. **FASSON® / Avery Dennison®** self-adhesive papers and films have proved themselves in practical application a million times over and thus offer the very ultimate in terms of processing ease and reliability.

Nevertheless, the processing of **FASSON® / Avery Dennison®** self-adhesive papers and films may still be adversely influenced by certain factors which are not product-related and which therefore demand particular attention.

The following information is intended to help you to avoid processing problems and to solve any other problems which may possibly occur.



TECHNICAL BULLETIN 8.3

Warehousing

FASSON® / Avery Dennison® sheets are packed in reams in packing paper coated on one side with polyethylene or in boxes extra wrapped in PO-foil. If the reams / boxes are kept in storage for a relatively long period of time, there is a risk of adhesive egress from the guillotined edges of the sheets. This can largely be avoided by taking the following precautions:

- Do not stack the reams/boxes higher than 75 cm.
Reams / Boxes delivered to you in stacks taller than 75 cm should be palletized in smaller quantities.
- Palletized reams/boxes should not be stacked on top of one another.
- Avoid excessive heat.
- Temporary periods of cold, e.g. winter months, transport, unheated storage rooms, will not adversely affect the laminate. However, in cases where storage conditions have been excessively cold, particular attention should be paid to the following section concerning acclimatization.

Prior to printing

Whilst all printing stock must be acclimatized to the atmospheric conditions prevailing in the printing shop prior to printing, this basic rule is particularly important in the case of self-adhesive products, for these products comprise a laminate whose component materials each react differently to heat and moisture.

For optimum flatness and registration, a relative humidity of 50-60% and an ambient temperature of approx. 20°C constitute ideal climatic conditions for a printing shop. If the air is too dry, the edges of the paper will lose moisture and shrink; if it is too humid, e.g. during rainy periods, the edges of the paper will absorb additional moisture and become wavy. Just as important as moderate relative humidity is the adaptation of the laminate to the ambient temperature of the printing shop. If the stack of sheets is warmer, the edges of the sheets will lose moisture; if the stack is colder, condensation will form on the edges of the sheets.

Spectacle-wearers are only too familiar with the problem: when it's cold outside and you enter a heated room, your glasses immediately steam up!

In the case of stacked sheets, this phenomenon manifests itself in the form of wavy edges! In such cases it is necessary to allow plenty of time for the sheets to become acclimatized to the ambient conditions of the printing shop. The acclimatizing process can be assisted by placing intermediate layers of thick cardboard or wooden boards every 5 cm and weighing the stacks down with heavy weights. Wavy edges represent a particularly difficult problem and not even the aforementioned measures will eliminate them entirely.

Preventive measures are therefore the best solution. This means ensuring uniform temperature and relative humidity in both the storage room and the printing shop. Temperature and relative humidity are interdependent.

TECHNICAL BULLETIN 8.3

The following rule of thumb ought to prove useful:

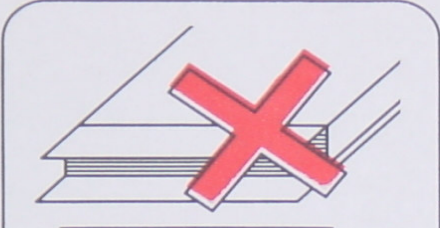
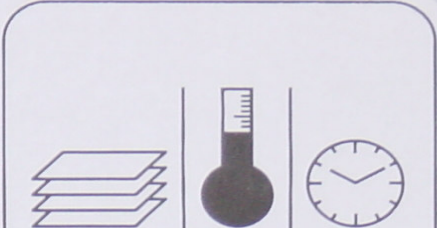
A rise in temperature of 3°C will reduce the relative humidity by approximately 10%. So if the relative humidity is much too high, switch on the heating!

If the packed reams/boxes are warmer or colder than the temperature prevailing in the printing shop, they should be left in their packing until their temperature has risen or dropped to the ambient temperature.

Depending on the temperature difference and the size of the stack, this period of acclimatization may be anything between 24 and 48 hours. Only then should the reams be unpacked. Any opened packages containing remaining sheets should be reclosed carefully.

Printing in full format

FASSON[®] self-adhesive papers and films in sheets are packed ready for printing and in such a way that they do not stick together when removed from their packing. In the event that adhesive has in fact begun to seep in consequence of an excessively long period of storage, heavy stacking or too high a temperature, and the sheets tend to stick together, we recommend fanning out the sheets and, if necessary, rubbing their edges with French chalk or anti-set-off powder.

 <p>Storage conditions: 18-23 °C 50-55% R.H.</p>	 <p>125-4000 5-15 °C 3-24 h.</p>
<p>Storage Magasinage Lagerung Opslag Almacenamiento Immagazzinaggio Armazenamento Varastointi Lagring</p>	<p>Conditioning Conditionnement Konditionierung Conditioneren Acondicionamiento Condizionamento Acondicionamento Ilman lämpö ja kosteus Konditionering Behandling</p>

DISCLAIMER

All Avery Dennison statements, technical information and recommendations are based on tests believed to be reliable but do not constitute a guarantee or warranty. All Avery Dennison products are sold with the understanding that purchaser has independently determined the suitability of such products for its purposes.

All Avery Dennison's products are sold subject to Avery Dennison's general terms and conditions of sale, see <http://terms.europe.averydennison.com>