

# Avery Dennison Graphics Material Storage

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## Introduction

Correct storage of materials is important and very often has an impact on your entire production process. Products stored under the right environmental and climatic conditions will allow smooth machine handling and enable you to maintain the optimum product performance throughout its complete lifetime. On the other hand products that are not stored correctly can have an adverse effect on your production process. This document provides specific recommendations on how best to store newly acquired self adhesive films as well as rolls that have been partially used.

## Shelf life

Specific shelf life statements are given by Avery Dennison for their products. When environmental and climatic conditions are as recommended, a material will continue to retain its designed properties and allow the same ease of processing during the entire period the film is kept on stock. You can find the warranted shelf life of a product on the corresponding product data sheet.

Stored products which exceed the stated shelf life will not be covered by warranty. The age of a product can be determined via the box or core label.

## How to store materials

New materials should, as much as possible, be stored in the original packaging including, if available, the protective plastic sleeve. It is recommended to store boxes horizontally.

Part used rolls, where some material has already been removed can best be hung vertically, supported for example by wall brackets.

Elevate rolls when possible and always avoid placing rolls directly on the floor. Rolls on the floor may attract dust and debris that is blown around, rolls placed upright can easily be tipped over causing damage to the material, property or personnel. An additional benefit of elevating material is that it avoids possible influence of temperature variations and/or dampness penetrating upwards through the floor.



## Climatic conditions

Two aspects that have a substantial impact on the handling/processing capabilities and on the shelf life of a self-adhesive product are temperature and relative humidity under which they are stored.

- Relative humidity has to be around 50 to 55%.
  - Storage under to a lower percentage of humidity over a longer period may dehydrate the backing paper, causing the film to tunnel when unwound. It may also make the backing paper more susceptible to tearing.
  - A deviating level of humidity potentially also affects the lay-flatness properties of the film, which could lead to handling difficulties or printing/plotting problems.
- Temperature has to be around 20°C.
  - A prolonged exposure to higher temperatures can potentially have a negative effect on the adhesive properties, on printability and/or on the finish of the face film (mottling).



Align climatic conditions in the storage area on one hand and the production area (print or sign cutting) on the other. Difference(s) in humidity and/or temperature level between storage and production can cause the film to react after it has been transferred from one to the other. This can have an immediate effect on media handling.

If materials are not stored under conditions similar as in the production area, it is recommended to acclimatise materials prior to production for the duration of at least 24 hours. Acclimatising means that the media has to be put in the same room or under the same conditions as in the processing area.

### Monitoring humidity and temperature

It is important to regularly check the temperature and humidity level. This can be done quite easily by installing a simple thermo-/hygrometer. To obtain reliable readings, mount or position these gauges on suitable locations, avoiding situations that could allow misinterpretation of overall conditions (for example in direct sunlight or in airflow caused by air-conditioning units)

Do not only monitor climatic conditions of working hours and days, but also keep track of the conditions outside working hours; evening and night time, weekends and holidays. Often during these periods, climatic controls are switched off, enabling temperature and/or humidity to rise above or drop below favourable levels. Many thermo-/hygrometers have a memory function which allows checking and registering of climatic conditions during periods of absence.

Try to avoid storage or exposure of materials near to elements or in situations that could affect the shelf life or properties of a product;

- Air conditioning units
- Central heating elements
- Humidifiers
- Direct sunlight

Furthermore, minimize fluctuation of climatic conditions; For example, keep (loading dock)doors closed as much as possible.

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