



Technical Information

Issue: September 2015

Product Name

85-601820-5 Flex Laminating adhesive permanent E43

1. Description / Application

Chlorine free, permanently sticking, radiation curing adhesive. Suitable for laminating or gluing printed paper or various plastic self-adhesive label materials to e.g. laminating films. Particularly suitable for over lamination of inks from our standard non LM series.

2. Product Safety

Intended Use

Food packaging, pharma, or hygiene: **NO**

Only acceptable for food packaging if the processing conditions rule out the possibility of set-off in the reel or stack and the design of the final printed article ensures reliable functional barrier properties to migration. For further information, please refer to **Siegwerk's Customer Guidance: Printing Inks for Food Packaging ("Know How")** on <https://www.siegwerk.com/en/our-responsibility/product-responsibility/customer-communications/food-packaging-safety.html> in particular chapter 5. "The printer's selection of ink" has to be observed.

3. Properties / Substrates

Properties

Applied with the flexo-varnishing or letterpress unit, which is equipped with a lamination-unit and subsequent UV-drier, the adhesive provides:

- permanent sticking
(the UV-curing operation serves to obtain the stickiness, resp. optimum bond values, i.e. without lamination the varnish remains sticky after the UV-curing)
- medium viscosity
- low odour compared to usual laminating adhesives

Substrates

Laminates with good bond values, which are resistant to water, cosmetics, lotions, shampoos, alcohol, cleaning agents and solvents are normally obtained with the following combinations if the adhesive is properly applied:

- Coated papers to oriented polypropylene (OPP), Corona-treated in-line or by the manufacturer with a surface tension of min. 42 and max. 44mN/m.
- In-line Corona-treated polyethylene with min. 42 - 45 mN/m, solid area or partially printed, to oriented Polypropylene (OPP), Corona-treated in-line or by the manufacturer, with min. 42 to max. 44 mN/m.
- Varnished/primered polyethylene or polypropylene, solid area or partially printed, to oriented polypropylene (OPP), Corona-treated in-line or by the manufacturer, with min. 42 to max. 44 mN/m.

Suitability of each substrate has to be tested under original conditions before print run.

In case of doubt, please contact our technical service.



4. Printing and processing instructions

The application weight of this laminating adhesive has to be at least 6 g/m². Lower coat weights lead to worse compound values.

This laminating adhesive **must not be thinned**, as otherwise the application weight and consequently the compound values fall drastically.

Guidelines for use

Before the print job is started, new materials must be checked for compatibility with the planned laminating adhesive/inks combination, even if their suitability on a comparable type of the same substrate group is proved.

The test laminates have to be examined after die-punching (in particular at the edges) for bond strength, and, if necessary, for resistance to water, the packaging contents and other job-specific requirements.

Consequently, for every new job in which printing is done on a known material, but with untested ink and printing combinations, the aforementioned tests have to be carried out as well.

Please see also the information on the material safety datasheet.

Cleaning

The varnish can be removed from tools by using methoxypropanol.

5. Shelf life

This product has under normal conditions a shelf life of **at least 12 months**. Within this period the product is usable in conformity with the indications of this data sheet.

Normal conditions mean:

- Storage in firmly closed, not yet tapped containers.
- Temperatures not exceeding 20°C for weeks or 25°C for days.
- Do not expose open containers to direct sunlight or strong light sources.

Because of the differences in materials for printing, processing conditions and test criteria this Technical Information can only be of an advisory nature. Our data reflect the latest state of our knowledge and are based on the characteristics established in the laboratory and on practical experience. Your own tests with the original materials under the respective conditions are indispensable. We disclaim any liability for applications for which this product is not foreseen.