

FOLACOAT / FOLACOMP – THE SYSTEM SOLUTION FOR INLINE COATINGS

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1. Overview of system components – Product description

High-quality packaging concepts require coating plates that meet the current requirements for inline coating in offset printing.

In addition to functional protective coating for faster finishing, the focus is increasingly on special coatings for promotional purposes. The high-performance Folacoat coating plates meet these requirements to a particularly high degree.

Unlike rubber blankets, the Folacoat coating plates are made of dimensionally stable polyester film or polyester film laminates. These substrates ensure that the coating is transferred in register and can be used several times. Based on the latest coating technologies, the coating-bearing polymer layer is transferred onto the substrate with the highest precision. The polymer used has been specially developed for transferring coatings (and not for transferring inks, as is the case with printing blankets). Splitting back of the ink can be largely ruled out. Folacoat coating plates are suitable for use with aqueous as well as UV coatings and deliver the best coating results.

In some cases, we equip the Folacoat coating plates with an additional protection film that simplifies subsequent processing with a CAD cutting system. Furthermore, the protection film provides optimum protection against mechanical damage to the surface during transport or storage.

The combination of Folacoat coating plates and our compressible Folacomp underpacking, form a high-performance coating system that meets the highest demands for coating quality and productivity.

The compressible Folacomp underpacking is the basis for smooth press running and thus protects the roller bearings of the press during production and allows higher production speeds.

During the production of the coating plate, the layout is cut and non-coating areas are then manually stripped. We would like to point out that positive coating areas should not be too small and should have a side length of at least 1 cm.

The Folacoat coating plates enable the transfer of dispersion and UV coatings in equal measure. They are characterised by high resistance to the substances contained in these coatings and the corresponding cleaners..

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The following coating plate types are available with a protective film for processing on cutting plotters with cut visualisation:

Folacoat Plus: The Folacoat Plus is a universal coating plate board with a double carrier for high dimensional stability.

Folacoat Extreme: A universal coating plate with a low-swell polymer layer. In addition to aqueous and UV coatings, this type of coating plate is used for H-UV and LED-UV applications.

Folacoat Flex: The compressible Folacoat Flex coating plate was developed to achieve optimum coating transfer regardless of substrate quality and coating type. In addition to the substrate, these consist of a compressible foam layer and the usual Folacoat Plus polymer for coating transfer. Until now, the Folacoat Flex has only been suitable for transferring dispersion coatings.

The following coating plate types were given a polymer layer with optimised gliding properties:

Folacoat Pearl: The enlarged surface of Folacoat Pearl supports the transfer of matt or soft-touch coatings. This plate is also suitable for use with aqueous and UV coatings. This type of coating plate is optionally available with a protective film.

Folacoat Basic: Inexpensive coating plate with a single-layer polyester carrier. Folacoat Basic is suitable for use with aqueous and UV coatings. The optimised top coat prevents ink build-up when using spot colours and low-migration inks.

Folacoat Ultra-A: The dimensionally stable varnishing plate is available in thicknesses of 1.95 mm and 2.40 mm. The polymer topcoat is suitable for aqueous and UV varnishes and ensures perfect varnish transfer.

Folacoat Advance S: Economical coating plate consisting of a single-layer polyester carrier and a soft polymer layer. The Folacoat Advance S is suitable for use with dispersion and UV coatings. Good results are achieved especially with different substrate qualities

Folacoat Easyspot AC: Self-adhesive blue-transparent Folacoat cover polymer for application on polyester films or offset printing plates to create economic coating plates. It is ideal for small coating areas and short runs.

With regard to available thicknesses or dimensions, you will find extensive information on the above qualities in our download area of our website www.folex.com.

2. COATING FORM PRODUCTION ON CAD CUTTING SYSTEMS

Machine processing on a cutting plotter offers the following advantages:

The distortion factor can be taken into account in the cutting plotter's application software. Coating plate production can be carried out quickly and precisely. Complex layouts, e.g. circles, semicircles, etc., which are a great challenge manually when cut manually, are created quickly and easily.

The application of a protective film to some Folacoat coating plate types improves the gliding of the cutting head over the polymer surface during coating plate production. This prevents damage to the cutting plotter or the coating plate due to jerky guidance of the cutting blade. In addition, the applied protective film improves the visibility of the applied cuts. These are clearly visible and overlooking of cut-outs is considerably reduced.

After cutting and removing the protective film, it is recommended to clean the polymer surface with a soft cloth and water to remove possible dust particles or adhesive residues of the protective film.

Please refer to the respective data sheet for the recommended cutting depth available for each product. It is definitely reached when a fine white line becomes visible on the reverse side of the coating plate. Cutting tests should be carried out in advance to avoid damaging the carrier film at all costs. Please refer to the data sheet of the product to be processed.

After cutting, the removal of the non-coating areas can begin (stripping). For larger areas to be stripped, these should be cut into strips of max. 5 cm width. This is important to avoid damaging the substrate. The Folacoat lifting tool is then used to lift the polymer at one corner. The polymer layer should be removed slowly so that the carrier film is not lifted, which could lead to deformation. (See also information "Preparation/Preparation").

The removed polymer can be disposed of with household waste as it is harmless to the environment. The coating form is finished when all polymer surfaces that shall not coat have been removed.

3. APPLICATION OF FOLEX COATING PLATES

For information on the use of coating forms in the coating unit of printing presses, please refer to the manufacturers' press manuals.

Depending on the type of press, it may be necessary to improve the damping properties of the cylinder set-up with regard to "hard" coating plates when the press is running.

In order to optimise the damping behaviour of the cylinder assembly especially for machines with chambered doctor blade system, we recommend our compressible Folacomp underlay as a system solution in addition to our compressible coating form, Folacoat Flex.

The compressible properties of these underpackings improve the running properties, smooth coating transfer and protect the roller bearings.

4. CLEANING OF FOLACOAT COATING PLATES

We recommend a mix of petroleum ether/water in a ratio of 1:1, a mix of isopropanol/water in a ratio of 1:1 or lukewarm water. As a general rule, cleaning agents that evaporate slowly or that leave a greasy residue should not be used. For further information, please refer to our "Folacoat Cleaner" or "Folacoat UV Cleaner" information.

5. STORAGE OF FOLACOAT COATING PLATES

Before first use, Folacoat coating plates should be stored flat and in small stacks, free of dust, in the original packaging. Pressure from above on the varnish plate should be avoided until use.

The ideal storage temperature is between 18-22°C with a relative humidity of 50-55%. In addition, the coating plates should not be exposed to sunlight or UV light and should not be stored near external heat sources. This can lead to an increased ageing process of the material and can negatively influence the flatness.

The maximum storage period of 12 months should not be exceeded.

After use, the cleaned and dried coating plate can be stored for repeat jobs. Storage should be in a hanging position if possible. It is advisable to wrap the format in a film to prevent dust from settling on the surface of the polymer. Folacoat coating plates can also be stored rolled. Protection from dust should be ensured.

6. ADVANTAGES OF FOLACOAT COATING FORMS

- High dimensional stability due to the polyester carrier film
- The dimensionally stable polyester film improves the accuracy of register punching.
- High print run stability and reusability
- Due to the micro-rough surface finish, a better gloss level can be achieved compared to rubber blanket or a photopolymer plate
- The coating plate can be produced outside the press, avoiding expensive downtime
- In the case of the coating plates with double carrier, they achieve the highest print runs even if the upper carrier film has been cut. The second carrier film stabilises the coating form and prevents the carrier material from tearing or cracking.
- Low ink build-up leads to less frequent cleaning intervals. Expensive machine downtimes are prevented.

If desired, our coating plates can also be supplied with bars. Please contact your dealer for this service.