

A diagonal split image showing a microscopic view of paper fibers. The top-right portion is in grayscale, showing a network of interconnected fibers. The bottom-left portion is in color, showing a similar network but with a dark, almost black background, highlighting the structure of the fibers.

 **LAHNPAPER**

lahnit®



PROPERTIES

- ✓ Longitudinally and transversely stretched polypropylene (BOPP) film coated on both sides
- ✓ No optical brighteners
- ✓ No plasticizers
- ✓ Waterproof
- ✓ Good edge tear strength
- ✓ Brilliant high-resolution print image
- ✓ Excellent whiteness
- ✓ High opacity
- ✓ Outstanding stiffness
- ✓ High strength
- ✓ Dimensional stability
- ✓ Chemical resistance; specific requirements must be tested in advance
- ✓ Temperature-resistant from approx. -10°C to +110°C, depending on duration, use and ambient conditions
- ✓ UV-resistant for approx. 1 year, depending on use and ambient conditions
- ✓ **lahnit®** can be recycled with PE, as a single type of plastic. Thermal recycling is possible.

SAMPLE APPLICATIONS

- ✓ posters
- ✓ price labels and hanging tags
- ✓ manuals
- ✓ instructions
- ✓ spare part lists
- ✓ plant tags
- ✓ passes and tickets
- ✓ recreational and hiking maps
- ✓ starting numbers

PRINTING PROCESSES

Conventional offset printing

- Film inks and/or inks allowing purely oxidative drying should be used.
- Wherever possible, use inks containing no mineral oil.
- Low dampening solution feed; too much water impairs drying.
- pH value should be between 6 and 6.5.
- Alcohol can be used, up to a maximum of 15 %.
- Powder can be used (fine grain size of 15 – 30 µm). The powder must be wiped off if there is to be a final varnishing.
- Drying agents can be used. The use of drying agents in the ink manufacturer's documentation should always be checked in advance.
- Stack height at exit should not exceed 600 sheets. This depends on the print product and ink coverage and should be checked on a regular basis to avoid ink transfer from one sheet to another.
- A drying time of between 12 and 24 hours should be allowed before postpress operations. Do not move the sheets during this time otherwise ink may be transferred from one sheet to another.
- With thinner films, minimize the printing pressure to avoid register problems due to material stretching.
- IR drying is possible if suitable inks are used.
- Increased colour protection can be achieved by using a dispersion- or UV-varnish.

UV offset printing

- Operate UV dryers at a low heat setting.
- Stack temperature at delivery should not exceed 50°C.

HP Indigo digital printing

lahnit® can be used on HP Indigo presses without a primer from ink series 4.0.

PRINTING

- Acclimatize **lahnit®** in its sealed ream packaging in the pressroom at least 24 hours before printing.
- Ideal conditions in the printroom: 50 – 70 % relative humidity at 20 – 25°C room temperature.
- Max. feeder load 2000 sheets (approx. 20 – 30 cm stack height).
- Unpack **lahnit®** shortly before printing and fan out sheets well in order to allow smooth feeding. Attention, sheets must not crease!
- Remove unprinted sheets from the feeder and store in sealed packaging. When sheets remain unpacked for a longer period, e.g. overnight, the air between the individual sheets could exhaust, which may cause problems during feeding.
- Optimum runnability can be achieved using an ionization system in the pressroom
- Do not stack pallets! **lahnit®** can be stored for approximately 2 years in its sealed packaging. It should be stored at a temperature of between 0°C and +40°C.

POSTPRESS

Folding

- The first fold should always be made in cross-machine (CD) direction.
- Automatic folding machines can be used.
- Pre-creasing is recommended with higher grammages.
- Once folded, products should be weighted down for a time to stop them springing open as films typically do.
- If further processing steps are required after folding, each step needs prior testing for this application.

Embossing / foil embossing

- Blind embossing is possible but is not as effective as on paper.
- Recommended processing temperature for hotfoil embossing: approx. 80 – 90°C.

Binding / gluing

- Hot melt adhesive binding
- Thread stitching is possible
- Round perforations should be used for spiral binding; square perforations are not recommended because of their sharp corners
- Other adhesives: polyurethane adhesives, transfer adhesive tape (e.g. Herma 1011 or Regiotape RT10924)
- Adhesive binding should be tested prior to production.

Varnishing

- Varnishing is possible with UV varnish and water/oil-based offset varnishes.
- In the case of subsequent varnishing, the ink must be dry on the film and free of dust and powder residue.

Cutting, die-cutting, creasing, perforating, stitching and eyeing

- All tools should be kept clean, sharp and free of burrs to stop the film tearing. Tool wear is more rapid with film than with paper.
- The pressure of the press crosshead should be minimized for cutting. Fanning out of sheets after cutting stops them sticking together.
- When die-cutting, the blanks should have rounded rather than sharp corners.
- Stitches and perforations should be tested in advance.
- Metal eyelets may be used.

lahnit® 100.080 // white

100 µm

lahnit® 150.110 // white

150 µm

lahnit® 200.140 // white

200 µm

lahnit® 120.090 // white

120 µm

lahnit® 180.128 // white

180 µm

Standard sizes (Other sizes available on request)

✓ 70 x 100 cm, CD x MD

MD = machine direction, CD = cross direction; observe direction for folded products.
Other sheet sizes and technological data sheets on request.



LAHN PAPER GmbH · Auf Brühl 15-27 · 56112 Lahnstein · Germany

T +49 2621 177-0 · F +49 2621 177-609 · www.lahnpaper.de · info@lahnpaper.de

Printed on **lahnit®** 120.090

The information contained in this brochure is based on our knowledge and practical experience. Due to the variety of possible influences during processing and use we recommend that the customers carry out own trials to test our products. Changes due to technical progress or internal development are reserved. A legally binding guarantee of certain properties cannot be derived from the statements in this brochure.