The nyloflex® ART shows its full strength in flexo printing on corrugated board, carton, packaging papers and films. It easily masters solids and halftones in one printing forme, on all kinds of uncoated and lightly coated papers. Whether with solvent-based or water-based inks – the results are more than convincing.

**Fields of application**
- Postprint on high-quality corrugated board
- Preprint on kraftliner and testliner
- Sack and kraft paper
- Folding boxes and solid board
- Flexible packagings

**Plate structure**
The nyloflex® ART is a monolayer plate. It consists of a light-sensitive photopolymer layer bonded to a polyester film for dimensional stability.

**The nyloflex® ART:**

**The digital nyloflex® ART-D II:**
Structurally it corresponds to the nyloflex® ART, the substrate layer is replaced with the laser layer.

**Plate colour**
- Raw plate: red (ART-D II with black layer)
- Finished plate: red

**Plus points**
- Very good ink transfer, also with water-based inks.
- Excellent area coverage and high solid densities.
- Wide exposure latitude and good intermediate depths.
- Very good print results in halftone and solid elements in one printing form.
- Broad field of application.
- Reliable plate processing.
- Ozone-resistant.

**Additional plus points of the digital nyloflex® ART-D II:**
- Filmless, digital transfer of information.
- Higher reproducibility.
- Lower tonal value increase than in conventional processing.
- Wider contrast range, finer gradations.

**Plate thicknesses and sizes**

<table>
<thead>
<tr>
<th>Plate type</th>
<th>ART 114</th>
<th>ART 170</th>
<th>ART 254</th>
<th>ART 284</th>
<th>ART 114 D II</th>
<th>ART 170 D II</th>
<th>ART 254 D II</th>
<th>ART 284 D II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thickness in mm / inch</td>
<td>1.14 / 0.045</td>
<td>1.70 / 0.067</td>
<td>2.54 / 0.100</td>
<td>2.84 / 0.112</td>
<td>1.14 / 0.045</td>
<td>1.70 / 0.067</td>
<td>2.54 / 0.100</td>
<td>2.84 / 0.112</td>
</tr>
<tr>
<td>Sizes* mm (inch)</td>
<td>635 x 762 (25 x 30)</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>762 x 1016 (30 x 40)</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>920 x 1200 (36 x 47)</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>1067 x 1524 (42 x 60)</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>1250 x 2032 (49 x 80)</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>1270 x 2032 (50 x 80)</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

* Presently valid standard sizes – subject to changes. Further sizes and thicknesses are available on request.
Hardness
Plate hardness:

ART 114 (D II): 73° Shore A
ART 170 (D II): 57° Shore A
ART 254 (D II): 48° Shore A
ART 284 (D II): 45° Shore A

DIN hardness: 40° Shore A
(according to DIN 53505 / DIN EN ISO 868: 1997)

Screen rulings/Tonal range

ART: 2 - 95 % at 60 l / cm
ART 114 D II – ART 170 D II: 1 - 98 % up to 60 l / cm
ART 254 D II – ART 284 D II: 2 - 95 % up to 54 l / cm
Line width: 55 µm
Isolated dot: 200 µm

Suitable equipment
The nyloflex® ART can be processed with all units of the nyloflex® equipment range and all commonly used devices.
The nyloflex® ART-D II can in all sizes be used with laser systems suited for imaging flexo printing plates.

Wash-out solution
Especially good results are achieved with the nylosolv® wash-out solutions. nylosolv® can be regenerated and reused.

Printing inks
nyloflex® ART and ART-D II printing plates are suited for all water-based and alcohol-based printing inks (ethyl acetate content preferably under 15 %, ketone content preferably under 5 %). When used with UV inks, the print run stability may decrease – depending on the ink type and temperature. We therefore recommend to make a swelling test.

Storing
nyloflex® ART and ART-D II plates must be stored flat, in a cool and dry place at 10 - 25 °C / 50 - 77 °F (room temperature) and a relative humidity of approx. 55 - 60 %. If the workroom temperature differs significantly from that of the storage room, the plates should prior to their use be adapted to the temperature of the workroom.

Processing steps and times*
Whether nyloflex® ART conventional or digital, the raw plate is stable, plate processing is no problem and above all detacking is guaranteed even with short UVC exposure times.

A detailed description of the individual platemaking steps as well as detailed information about processing and storing can be found in the Work Manual for Flexo Printing Plates.

<table>
<thead>
<tr>
<th>Processing steps</th>
<th>Values / Times</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recommended relief depth</td>
<td>600 - 1100 µm</td>
</tr>
<tr>
<td>Plate-back exposure</td>
<td>20 - 110 s</td>
</tr>
<tr>
<td>Main exposure ART</td>
<td>8 - 20 min</td>
</tr>
<tr>
<td>Main exposure ART-D II</td>
<td>15 - 20 min</td>
</tr>
<tr>
<td>Wash-out (mm/min)</td>
<td>130 - 190 (ca. 5 - 7.5&quot; / min)</td>
</tr>
<tr>
<td>Drying at 65 °C (149 °F)</td>
<td>2 - 3 h depending on the plate thickness</td>
</tr>
<tr>
<td>Postexposure (UVA)</td>
<td>10 - 15 min</td>
</tr>
<tr>
<td>Light detacking (UVC)</td>
<td>7 - 12 min</td>
</tr>
</tbody>
</table>

* These processing times were determined during processing on the nyloflex® F III equipment combination. Where other units are used, new values need to be determined.

In addition, the processing times depend on the lamp age, wash-out solution, image details and the batch.

Processing hints
The windows must be covered with suitable, tested UV-protective films. The workrooms must be equipped with UV-screened light sources.

High quality standard
BASF printing plates are manufactured in accordance to the requirements and standards of DIN ISO 9001. This process guarantees our customers maximum consistency of quality.

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