FEATURES

Duplicating Film HG FDH/FDH-175 are daylight graphic arts duplicating films which provide high quality contact reproductions of halftone and line negatives and positives.

1. These films can be handled under daylight conditions (non-ultraviolet or ultraviolet-filtered light). This leads to less film waste.

2. The film backing layer has incorporated a newly developed electroconductive grain to provide permanent protection from charging.

3. Speed and wide exposure latitude are ideal for use with daylight contact printers utilizing either ultra-high pressure mercury vapor or metal halide light sources. Results in faster and more consistent printer work for better efficiency.

4. Excellent gradation reproduction results in accurate reproduction of the entire highlight to shadow range for halftone positives and negatives. In particular, minimized changes in the midtone region ensure accurate duplication.

5. High contrast yields sharp, high quality images. High quality emulsion-to-base exposures also possible.

6. Processed films retain high dimensional stability.

7. Adapted for the HR system which means that up to a 50% decrease in the replenishment amount is possible.

APPLICATIONS

- Critical reproduction work of line and halftone films.
- Hardening of soft dots.
- Changing the gradation of halftones.
- Raising the contrast of low-contrast line negatives.
- Spread and choke letter work.
- Printed circuit and integrated circuit patterns, high-precision industrial drawings.

BASE

HG FDH: 0.100 mm polyester base
HG FDH-175: 0.175 mm polyester base

LIGHT SOURCE

Ultra-high pressure mercury vapor lamp, metal halide, pulsed xenon lamps.

SPECTRAL SENSITIVITY

Short wave ultra-violet (330 ~ 450 mm).
### EXPOSURE EXAMPLE

<table>
<thead>
<tr>
<th>Exposure Method</th>
<th>Exposure (1)</th>
<th>Exposure (2)</th>
<th>Exposure (3)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>HG FDH</td>
<td>HG FDH</td>
<td>HG FDH</td>
</tr>
<tr>
<td>Original</td>
<td>Light</td>
<td>Light</td>
<td>Light</td>
</tr>
</tbody>
</table>

| Count          | HR-D1/QR-D1  | 30           | 22           |

Printer: Daylight printer with ultra-high pressure mercury vapor lamp at 1.5kW.

Note: The appropriate exposure count varies according to factors such as processing conditions and printer type. Carry out test exposures to determine the correct exposure count.

### ROOM LIGHT TOLERANCES

<table>
<thead>
<tr>
<th>Light Source</th>
<th>Safe Handling Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-ultraviolet White Fluorescent Lamp</td>
<td>About 30 min. at 200 lux</td>
</tr>
<tr>
<td>Yellow Fluorescent Lamp</td>
<td>About 60 min. at 200 lux</td>
</tr>
</tbody>
</table>

Because these duplicating films are high speed films, their safe handling limits are shorter than for daylight contact films. We recommend not raising room illumination more than necessary.

Normal fluorescent lamps with ultraviolet light filters have the same safe handling limits as non-ultraviolet fluorescent lamps.

### AUTOMATIC PROCESSING

**Example: Automatic Processor FG680AEII**

<table>
<thead>
<tr>
<th>Step</th>
<th>Chemicals</th>
<th>Temperature</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development</td>
<td>Fuji HQ System Developer QR-D1 QR-D1PD</td>
<td>35°C (95°F)</td>
<td>30 sec.</td>
</tr>
<tr>
<td>Fixing</td>
<td>Fuji HQ System Fixer UR-F1 UR-F1PD UR-F1PD H GR-F1</td>
<td>35°C (95°F)</td>
<td>28 sec.</td>
</tr>
<tr>
<td>Wash</td>
<td>Running water</td>
<td>15°C (77°F)</td>
<td>27 sec.</td>
</tr>
<tr>
<td>Dry</td>
<td>—</td>
<td>Max. 55°C (112°F)</td>
<td>36 sec.</td>
</tr>
</tbody>
</table>

* HR-D1 can also be used as the developer.

**Dilution Ratios:**

- Developer: QR-D1 : water = 1 : 3
- Developer replenisher: QR-D1 : water = 1 : 2
- Fixer and fixer replenisher: UR-F1 : water = 1 : 2

Standard developer and fixer replenisher rates per sheet of 50% blackened 50.8 x 61.0 cm (20 x 24 in.) are as follows. These amounts may depend on various conditions.

- Developer replenisher: QR-D1 ............... 100 ml
- Fixer replenisher: UR-F1 ............... 120 ml