ABOUT US

HARMAN technology limited, trading as ILFORD PHOTO, is a global market leader and the only manufacturer in the world to provide a full range of black & white film, darkroom paper, photochemistry and ancillary products.

For over 137 years, generations of customers have demanded the very best and this is why they continue to choose ILFORD PHOTO. Operating from our manufacturing headquarters in Cheshire, UK, our products are shipped around the globe and into the discerning hands of beginners, enthusiasts, students and professional photographers as well as leading labs, classrooms and darkrooms.

Formed from humble beginnings in 1879, when Alfred Hugh Harman began making Gelatine Dry Plates in the basement of his house in Ilford, UK, the ILFORD name has remained one of the oldest and most established in the photographic industry.

Today, Harman’s legacy continues in more than just a name. Having successfully weathered the impact of significant technological changes across the photographic industry, HARMAN technology blends the traditions of manufacturing excellence with a passion and commitment to our customers and the future of black & white film photography.
CHOOSING A FILM

ILFORD PHOTO offer the world’s most comprehensive range of black & white films covering a variety of formats, speeds and applications.

DID YOU KNOW?
The first iterations of the ILFORD HP and FP roll films, the early predecessors to HP5+ and FP4+, were launched in 1935. The HP being an abbreviation for Hypersensitive Panchromatic and FP for Fine Grain Panchromatic. HP was rated as 160 ASA and FP at 28 ASA.

RANGE COMPARISON

Most ILFORD films fall into two distinct ranges: PLUS films (FP4 PLUS, HP5 PLUS and PAN F PLUS) and DELTA PROFESSIONAL films (DELTA 100, DELTA 400 and DELTA 3200).

DELTA PROFESSIONAL films use the latest film emulsion technology which give them the advantage of a lower grain to speed ratio. This means that you get less grain at the equivalent speed when compared to PLUS films presenting a marginally cleaner, sharper look.

However, PLUS films, which use an established emulsion technology, have more exposure latitude than DELTA films. This makes them better for push and pull processing. They are also less sensitive to over processing making them ideal for people getting started in film photography.

There is no right or wrong choice when choosing between DELTA PROFESSIONAL and PLUS films. Both are professional quality ranges with the fundamental differences down to the available speeds, exposure latitude and the look of the grain structure.

SPECIALIST

ILFORD PHOTO produce specialist films that have unique characteristics.

SFX 200 Medium speed ISO 200 film with extended red sensitivity. Use with a deep red filter for infra-red style images.

XP2 SUPER Fast speed ISO 400 film with the convenience of C41 processing (this means you can use most high street film processing services).

KENTMERE FILMS

The Kentmere brand, which includes the Kentmere 100 and 400 black & white films, is owned and manufactured by HARMAN technology. These films benefit from the same rigorous production and quality control processes as all ILFORD PHOTO films.

Kentmere films are a great starting point for students or anyone learning film photography, before stepping up to ILFORD films.
FILM RANGE: PLUS

PAN F PLUS
A high contrast, super sharp black & white film with very fine grain. Ideal for studio photography and shooting in bright, natural light.

- Slow speed ISO 50
- Exceptionally fine grain
- Outstanding resolution & sharpness

FP4 PLUS
An all-purpose black & white film with fine grain, medium contrast and outstanding sharpness. Ideal for most shooting scenarios in good light conditions.

- Medium speed ISO 125
- Fine grain, high sharpness

HP5 PLUS
A medium contrast, all-purpose black & white film. Ideal for action, documentary, travel, street and available light photography.

- High speed ISO 400
- Great results in varied lighting conditions
- Wide exposure latitude

TOP TIP
Store your film in cool conditions away from direct sunlight

© Dave Butcher
**FILM RANGE: DELTA**

**DELTA 100 PROFESSIONAL**

Medium speed, exceptionally fine grain, black & white film. Ideal for capturing maximum detail and sharpness.

- Medium speed ISO 100
- Superb image quality and fine grain
- Core-Shell™ crystal technology

**DELTA 400 PROFESSIONAL**

High speed, fine grain, black & white film designed to produce images with depth and detail.

- High speed ISO 400
- Maximum sharpness and detail
- Core-Shell™ crystal technology

**DELTA 3200 PROFESSIONAL**

Exceptionally high-speed black & white film. Ideal for fast action and low light photography.

- Ultra-high speed EI 3200
- Core-Shell™ crystal technology

“A technically perfect photograph can be the world’s most boring picture”

ANDREAS FEININGER
**XP2 SUPER**

Fine grain, highly versatile black & white film that can be processed in C41 chemistry. Can be shot at different speeds between ISO 50 and 800 on the same roll and processed as standard.

- High speed ISO 400
- B&W film using colour C41 processing
- Wide exposure latitude and well-defined highlights

**SFX 200**

Medium speed, black & white film with extended red sensitivity for creative photographic applications.

- Medium speed ISO 200
- Use with filters for creative effects
- When coupled with a deep red filter it can produce infra-red style images

**ORTHO COPY PLUS**

Medium speed, black & white fine grain sheet film. Ideal for studio photography, continuous tone copying, medical and forensic applications.

- Medium speed ISO 80
- Fine grain, orthochromatic film
**FILM RANGE: KENTMERE**

**KENTMERE 100**

- Medium speed black & white film. Suitable for most applications in good lighting conditions.
- Medium speed ISO 100
- Fine grain and good sharpness
- Broad tonal range

**KENTMERE 400**

- All purpose, high speed, black & white film. A smart choice for beginners and those returning to film.
- High speed ISO 400
- Fine grain and good sharpness
- Wide exposure latitude

---

**FILM PHOTOGRAPHY FOR BEGINNERS**

**FILM TYPE**

The ‘type’ of film you need will be determined by the camera that you are using.

ILFORD PHOTO produce films in 35mm (135), 120 roll (medium format) and sheet film (large format). See ilfordphoto.com for product availability and sheet film options.

**FILM SPEED**

Film speed or ISO is the measure of the film’s sensitivity to light.

The lower the ISO, the less sensitive to light the film is i.e. ISO 50 is a slower film than ISO 400. The amount of available light (either natural or created) will determine which speed you should be using. If light is limited, then a fast speed is best to keep things sharp. If there is plentiful light you can use a slower speed. As a general rule the slower speed films have a finer grain structure (when used at their recommended ISO).
## FILM: AT A GLANCE

For available sheet film sizes please visit ilfordphoto.com

<table>
<thead>
<tr>
<th>FILM: AT A GLANCE</th>
<th>FILM SPEED</th>
<th>PLUS RANGE</th>
<th>DELTA RANGE</th>
<th>SPECIALITY RANGE</th>
<th>KENTMERE RANGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>35mm film 24 exposures</td>
<td>ISO 50</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>35mm film 36 exposures</td>
<td>ISO 125</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>120 roll film</td>
<td>ISO 400</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Sheet film</td>
<td>ISO 100</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>35mm film bulk lengths</td>
<td>ISO 400</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>35mm film pro pack of 50 x 24 exposures</td>
<td>ISO 3200</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>35mm film pro pack of 50 x 36 exposures</td>
<td>ISO 200</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Single use camera</td>
<td>ISO 80</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>ISO 100</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>ISO 400</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>
WHAT TO LOOK FOR IN A PAPER

ILFORD PHOTO offer an extensive range of black & white photographic paper. Papers all have different characteristics and purposes. This guide will walk you through the terminology and choices available to help you pick the perfect paper for darkroom printing.

TRY SOMETHING DIFFERENT
MULTIGRADE ART 300

See page 21 for more information

PAPER BASE

The majority of ILFORD papers cover two different base types. Resin Coated (RC) and Fibre Base (FB). RC paper is sealed between layers of polyethylene with the emulsion and a ‘super-coating’ on top. This makes them typically more robust and therefore quicker and easier to handle during the printing process. FB paper has a layer of baryta (barium sulphate) applied to the paper base which is then coated with emulsion. These papers have a hand-crafted look and feel and a heavier weight which can result in prints of superb quality with deep blacks that make prints look richer and add depth.

PAPER GRADE

ILFORD MULTIGRADE papers are variable contrast papers designed to be used in conjunction with MULTIGRADE filters or an enlarger with a colour head. This allows the full range of contrast (00 soft through to 5 hard) to be attained from negatives. ILFORD MULTIGRADE variable contrast paper is used without any filters it equates to approximately grades 2-3. Fixed grade papers are designed for use without filters and therefore avoid the added cost of buying filter kits. Graded papers were traditionally very popular but have largely been replaced by variable contrast papers. As such the ILFORD range only includes grades 2 and 3.

PAPER ROLLS

Photographic paper rolls are manufactured with the emulsion side winding facing IN or OUT. In general, widths of 20” (50.8cm) or less have the emulsion facing out (EO) while wider rolls typically have the emulsion facing in (EI).

PAPER SURFACE

The surface of the paper will help determine the final look and feel of the print.

- Glossy - a smooth surface that can boost contrast and make blacks pop and whites shine bright.
- Pearl - a subtle pearlescent finish that helps images look sharp and clear with added depth.
- Satin - a smooth finish without the shine of glass or pearl but all the contrast.
- Lustre - a smooth, subtle sheen that doesn’t detract from the image.
- Matt - a smooth, clean and natural looking surface without the shine of gloss. Perfect for lighting conditions when reflections may impact the viewing experience.
- Semi-matt - a smooth and natural looking finish with similar qualities and attributes to most matt surfaces.

IMAGE TONE

Many ILFORD papers have a choice of tone covering cool, neutral and warm tone. Images can also be toned using chemistry as part of the printing process with FB papers being particularly suited to this.

- Cool tone
- Neutral
- Warm tone
MULTIGRADE IV RC DELUXE
Resin coated, variable contrast black & white photo paper that delivers a full tonal range and exceptional image quality throughout its wide contrast range of grades 00-5.
Medium weight 190gsm resin coated paper
Neutral image tone with a bright white base tint

MULTIGRADE IV RC PORTFOLIO
This double-weight, black & white variable contrast paper has a bright white resin coated base which delivers stunning cool to neutral images across a full tonal range.
Cool to neutral image tone with a bright white base tint
Distinctive, premium feel with the convenience of a resin coated base
Also available as a 4x6" back printed postcard

MULTIGRADE RC COOLTONE
Resin coated, variable contrast black & white photo paper with a cool image tone.
Medium weight 190gsm resin coated paper
Cool image tone with a cool white base tint

MULTIGRADE RC WARMTONE
Variable contrast, resin coated black and white photo paper on a warm white base.
Medium weight 190gsm resin coated paper
Warm image tone with a warm white base tint
**PAPER RANGE:**
**MULTIGRADE FB**

**MULTIGRADE FB CLASSIC**

Premium quality, variable contrast black & white photo paper on a double weight 255gsm fibre base. Suitable for all types of darkroom enlargers.

- Rich deep blacks and excellent tonal rendition
- Responds well to toning

**MULTIGRADE FB COOLTONE**

Versatile and easy to use, variable contrast black & white photo paper on a double weight 255gsm fibre base. Ideal for creative printers wanting glossy images, cool image tones and clean crisp whites.

- Cool white base tint and cool image tone
- Responds well to toning, chemical reduction and retouching techniques
- Well separated mid tones

**MULTIGRADE FB WARMTONE**

Designed for ultimate image quality, with warm image tones and a high response to toning techniques, this variable contrast photo paper has long been regarded as the discerning printers first choice.

- Luxuriously rich prints with warm deep blacks and creamy whites
- Highly responsive to toning, chemical reduction and retouching techniques

**MULTIGRADE ART 300**

The world’s only black & white, variable contrast, silver gelatin coated, 100% Cotton Rag darkroom paper.

- Slightly warm image tone with a neutral to cool acid free base
- Especially suited to toning and hand colouring
- Matt textured paper with an eggshell sheen
PAPER RANGE

ILFOSPEED RC DELUXE

Resin coated, black & white graded paper for darkroom printing. Suitable for a wide range of applications, including commercial, press, industrial, advertising and display work.

Bright white base tint and neutral image colour

Available in grades 2 & 3

ILFOBROM GALERIE FB

Traditional, graded black & white paper with a bright white, glossy surface on a baryta coated double weight 255gsm fibre base. Particularly suitable for archival prints.

Bright white base tint and neutral image colour

Full tonal range and superb image quality

Available in grades 2 & 3

KENTMERE VC SELECT

Black & white variable contrast photographic paper on a bright white resin coated base. Ideal for students and hobbyists alike.

Bright white base tint

Cool to neutral image tone

HARMAN DIRECT POSITIVE

Fixed grade, high contrast, glossy black & white photo paper which produces positive prints. Coated on a 255gsm fibre base. Ideal for pinhole photography and photograms.

Positive paper – no need for a negative

Slow ISO speed (around 1-3)

Process in conventional B&W photo chemistry
PAPER RANGE: LAB PAPERS

GALERIE DIGITAL SILVER RC

- Premium quality, silver gelatin, black & white panchromatic photographic paper on a resin coated base. Produces excellent contrast and sharpness for gallery quality results.
- Emulsion optimised for digital exposure
- Produces real silver gelatin RC prints

GALERIE DIGITAL SILVER FB

- Premium quality, silver gelatin, black & white panchromatic photographic paper on a baryta coated fibre base. Produces excellent contrast and sharpness for gallery quality results.
- Emulsion optimised for digital exposure
- Produces archival silver gelatin fibre prints

MULTIGRADE RC EXPRESS

- Specially designed for high speed printing applications and compatible with all conventional black & white exposing and photo finishing equipment found in professional labs.
- Cool image tone on a bright white base tint
- Medium weight 190gsm resin coated paper

WWW.HARMANLAB.COM
### Paper: At a Glance

**ILFORD announced the world’s first variable contrast MULTIGRADE paper back in 1940 and since then has evolved the range to become the ‘go to’ black & white papers for discerning darkroom printers the world over.**

| Grade | Base Weight | Base | Tone | Glossy Surface | Pearl Surface | Satin Surface | Fine Lustre Surface | Semi-Matt Surface | Matt Surface | Sheet Format | Roll Format | Process Use | Lab Only |
|-------|-------------|------|------|----------------|---------------|---------------|---------------------|-------------------|-------------|--------------|-------------|-------------|-----------|----------|
| Variable | 190gsm | RC | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish/Machine | ✓ | ✓ |
| Variable | 255gsm | RC | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish/Machine | ✓ | ✓ |
| Variable | 190gsm | RC | Cool | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish/Machine | ✓ | ✓ |
| Variable | 190gsm | RC | Warm | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish/Machine | ✓ | ✓ |
| Variable | 255gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish/Machine | ✓ | ✓ |
| Variable | 255gsm | FB | Cool | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish/Machine | ✓ | ✓ |
| Variable | 255gsm | FB | Warm | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish/Machine | ✓ | ✓ |
| Fixed - Grade 4 | 300gsm | Cotton Rag | Warm | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 255gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 190gsm | RC | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 255gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 190gsm | RC | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 190gsm | RC | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 255gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 190gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 190gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 255gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 255gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 300gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 300gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 300gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 300gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 300gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 300gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 300gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 300gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 300gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 300gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 300gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
| Fixed - Grades 2 & 3 | 300gsm | FB | Neutral | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | Dish Only | ✓ | ✓ |
PHOTO CHEMISTRY

With wide ranging options to cover all processing applications, our chemicals cater for the first timers through to large scale lab production. The range covers popular liquid and powder, film and paper developers as well as a complementary selection of sundry chemicals that includes Fixers, Stop Bath, Wetting Agent, Washaid, and Toners.

All our chemicals comply with the latest health, safety and environmental standards when used correctly. Material Safety Data Sheets and technical information for each of our products is available on ilfordphoto.com.

GETTING STARTED?

If you are new to processing film or making your own prints, we recommend the following chemicals.

<table>
<thead>
<tr>
<th></th>
<th>Film</th>
<th>Paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developer</td>
<td>Ilfotec DD-X</td>
<td>Multigrade Dev</td>
</tr>
<tr>
<td>Stop Bath</td>
<td>Ilfostop</td>
<td>Ilfostop</td>
</tr>
<tr>
<td>Fixer</td>
<td>Rapid Fixer</td>
<td>Rapid Fixer</td>
</tr>
</tbody>
</table>

“Photography is a way of feeling, of touching, of loving. What you have caught on film is captured forever... It remembers little things, long after you have forgotten everything.”

AARON SISKIND
CHEMISTRY RANGE:
POWDER FILM DEVELOPERS

ID-11

Economical and versatile, black & white, powder film developer, which gives the perfect blend of fine grain, sharpness and tonal rendition.

Produces fine grain negatives without loss of speed
Ideal for slow and medium speed films
Use stock solution or dilute further 1:1 or 1:3

MICROPHEN

Fine grain, black & white, powder film developer. Ideal for extending development times to push process fast films whilst retaining grain characteristics.

Perfect for push processing
Use stock solution or dilute further 1:1 or 1:3

PERCEPTOL

Extra fine grain, black & white powder film developer. When sharpness and details count, this developer delivers exceptional image quality.

Formulated for maximum sharpness and detail
Use stock solution or dilute further 1:1 or 1:3

For technical data please visit ilfordphoto.com
ILFOSOL 3

Suitable for beginners and advanced users alike, this economical film developer is perfect for developing small quantities of black & white films with ease and convenience.

- Fine grain and optimal sharpness
- Particularly suited to medium speed films
- Dilute 1:9 or 1:14 for some films

CHEMISTRY RANGE: LIQUID FILM DEVELOPERS

ILFOTEC DD

Replenishable, liquid concentrate film developer. Specifically designed for large quantity film processing systems. Use in conjunction with ILFOTEC DD STARTER for machine processing.

- Good resistance to contamination
- Dilute 1:4 for working strength solution

ILFOTEC DD-X

Fine grain, liquid concentrate, black & white film developer, which produces easy to print negatives that allow a high degree of enlargement.

- Fine grain developer giving full film speed
- Particularly suited to DELTA PROFESSIONAL films
- Dilute 1:4 for one shot use

DID YOU KNOW?

When processing 120 film at home, make it easier to find the edge in the dark by folding over the end tab before sticking the seal to the roll.
CHEMISTRY RANGE:
LIQUID FILM DEVELOPERS

ILFOTEC HC
Economic and versatile, highly concentrated liquid developer for all general-purpose black & white films.
Long life and good resistance to contamination
High quality, sharp results under a range of conditions
Dilute 1:15 or 1:31

ILFOTEC LC-29
Easy to use, economical, liquid concentrate film developer. Ideal for low volume, black & white film processing.
High dilution liquid concentrate
High quality, sharp results under a range of conditions
Dilute 1:9, 1:19 or 1:29

ILFOTEC RT DEV / REP
Designed for replenished roller transport and short leader card process systems when very short development times or high temperatures are needed. Use with ILFOTEC RT RAPID STARTER.
Suitable for all general-purpose b&w films
Long tank life and resistance to contamination
Dilute 1:1

PHENISOL
Low dilution, liquid concentrate developer for processing scientific photographic products and X-Ray film. Recommended for ILFORD ORTHO PLUS copy film.
For scientific photographic products
Manual / machine processing X-Ray film
Dilute 1:4 for working strength solution
CHEMISTRY RANGE: PAPER DEVELOPERS

HARMAN WARM TONE DEVELOPER

Liquid concentrate developer that gives prints a warm image tone. Suitable for use with all black & white photographic papers.

Suitable for resin coated and fibre based papers

Warm image tone

Dilute 1:9

MULTIGRADE DEVELOPER

Suitable for the dish/tray developing of all black & white photographic paper, but especially designed to achieve the best possible results with ILFORD MULTIGRADE papers.

Suitable for resin coated and fibre based papers

Neutral image tone

Dilute 1:9 or 1:14 for great economy

PQ UNIVERSAL

Suitable for the dish/tray developing of all black & white photographic paper, as well as some black & white technical and photographic sheet film.

Suitable for resin coated and fibre based papers

Slightly warm image tone

Dilute 1:9

It is the photographer, not the camera, that is the instrument. - Eve Arnold
CHEMISTRY RANGE:  
PAPER DEVELOPERS

**BROMOPHEN**

Economical, phenidone/hydroquinone powder print developer with a long shelf life. Suitable for dish/tray developing all black & white photographic papers.

- Especially recommended for fibre based papers
- Slightly warm image tone
- Stock solution dilutes 1:3

**2000RT DEV**

High capacity, liquid concentrate developer for high temperature machine processing of resin coated black & white photographic paper.

- Economical and easy to use
- Compatible with all types of paper processing machines
- Dilute 1:4

**2150XL KIT**

Liquid concentrate developer and fixer kit specifically for use with the ILFOLAB 2150 RC processor.

- Includes developer and fixer
- High print capacity
- For use with ILFOLAB 2150 RC processor

### CHEMISTRY RANGE:  
PAPER DEVELOPERS

**PAPER DEVELOPERS**

- **BROMOPHEN**
  - Economical, phenidone/hydroquinone powder print developer with a long shelf life. Suitable for dish/tray developing all black & white photographic papers.
  - Especially recommended for fibre based papers
  - Slightly warm image tone
  - Stock solution dilutes 1:3

- **2000RT DEV**
  - High capacity, liquid concentrate developer for high temperature machine processing of resin coated black & white photographic paper.
  - Economical and easy to use
  - Compatible with all types of paper processing machines
  - Dilute 1:4

- **2150XL KIT**
  - Liquid concentrate developer and fixer kit specifically for use with the ILFOLAB 2150 RC processor.
  - Includes developer and fixer
  - High print capacity
  - For use with ILFOLAB 2150 RC processor
CHEMISTRY RANGE: FIXERS

RAPID FIXER

Non-hardening, liquid concentrate rapid fixer for black & white films and traditional photographic papers.

- Easy and convenient to use
- Suitable for specialist and scientific materials
- Must not be used with fix hardeners
- Dilute 1:4 or 1:9

HYPAM FIXER

Non-hardening, liquid concentrate rapid fixer for black & white films and traditional photographic papers.

- Easy and convenient to use
- Suitable for specialist and scientific materials
- Can be used with hardeners
- Dilute 1:4

2000 RT FIXER

For high volume machine processing of resin coated black & white photographic papers.

- Economical and easy to use
- Non-hardening
- For machine processing
- Dilute 1:4

No space for a darkroom? Check out Local Darkroom (www.localdarkroom.com), a free resource to find public and private darkrooms as well as tuition.
CHEMISTRY RANGE:
SUNDRIES

ILFOSTOP

Low odour, citric acid stop bath which stops further development of photographic paper or film.
Works with Paper and film
Economical liquid concentrate
Prolongs fixer life
Dilute 1:19

WASHAID

Used to aid the rapid washing of all black & white films and fibre based papers to save you both time and water.
Aids washing of film and fibre based papers
Works with the ILFORD optimum permanence sequence
Dilute 1:4

ILFOTOL WETTING AGENT

Non-ionic wetting agent used as a final rinse to aid rapid, even drying for films and fibre based darkroom prints.
Suitable for film and photographic paper
Good for antistatic treatment
Dilute 1:200

HARMAN SELENIUM TONER

Liquid concentrate toner for dish/tray toning of all traditional black & white photographic papers. Creates an archival, visibly warmer print.
Suitable for all photographic papers
Convenient, versatile and with a long working dish life
Dilute 1:3
### CHEMISTRY: AT A GLANCE

#### FILM DEVELOPERS

<table>
<thead>
<tr>
<th>Product</th>
<th>500ml</th>
<th>1L</th>
<th>5L</th>
<th>Kit</th>
<th>500ml</th>
<th>1L</th>
<th>5L</th>
<th>Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>ID-11</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ILFOSOL 3</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ILFOTEC DD STARTER</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ILFOTEC DD DEVELOPER</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ILFOTEC DD-X</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ILFOTEC HC</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ILFOTEC LC 29</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ILFOTEC RT DEV/REP</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ILFOTEC RT STARTER</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>MICROPHEN</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>PERCEPTOL</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

#### PAPER DEVELOPERS

<table>
<thead>
<tr>
<th>Product</th>
<th>500ml</th>
<th>1L</th>
<th>5L</th>
<th>Kit</th>
<th>500ml</th>
<th>1L</th>
<th>5L</th>
<th>Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000 RT DEV</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2150 XL</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BROMOPHEN</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HARMAN WARMTONE DEVELOPER</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MULTIGRADE DEVELOPER</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PG UNIVERSAL</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
</tbody>
</table>

#### FIXERS AND SUNDRIES

<table>
<thead>
<tr>
<th>Product</th>
<th>500ml</th>
<th>1L</th>
<th>5L</th>
<th>Kit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000 RT FIXER</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HYDAM FIXER</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RAPID FIXER</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
<td>✔</td>
</tr>
<tr>
<td>ILFOSTOP STOP BATH</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HARMAN SELENIUM TONER</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WASHAID</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ILFOTOL WETTING AGENT</td>
<td>✔</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
MULTIGRADE FILTER BELOW LENS KIT

A fantastic addition to any darkroom. With 12 evenly spaced, speed matched grades, these filters enable simple contrast control for all variable contrast papers.

Contains 12 mounted contrast filters, a mounted safelight filter and a filter holder

Compatible with all MULTIGRADE papers

Half grade increments from 00-5

MULTIGRADE FILTER ABOVE LENS SET

Easy to use, speed matched filters with pre-defined grades. Designed to work with black & white photographic enlargers and colour enlargers in white light mode.

Contains 12 filters

Compatible with all MULTIGRADE papers

Half grade increments from 00-5

Available in 2 different sizes
ACCESSORIES

MULTIGRADE FILTERS

Easy to use, single grade, 30x30cm square speed matched filters compatible with all variable contrast papers.

Designed to work with black & white photographic enlargers and colour enlargers in white light mode

Simple contrast control

Available in half grade increments from 00 to 5

ANTISTATIC CLOTH

Eliminates dust and static from photographic materials and equipment such as cameras, lenses, enlargers and negatives.

Does not leave a residue

Eliminates dust and static

ILFORD SAFELIGHT FILTERS

An essential piece of kit for any darkroom. These high quality, 8x10" safelight filters are suitable for a wide range of sensitised products including black & white photographic papers.

Provide safe darkroom lighting

902 light brown safelight filter is compatible with most photographic papers

906 dark red safelight filter is recommended for use with HARMAN Direct Positive paper and orthochromatic materials
PINHOLE CAMERAS

OBSCURA BY ILFORD

The perfect entry level pinhole camera and a great way to experience the magic of one of the oldest forms of photography.

- Lightweight 4x5" pinhole camera
- Use with film or photographic paper
- Wide angle 87mm focal length and 0.35mm pinhole
- Also available as a kit which includes film and paper

HARMAN TITAN 4X5

A premium quality, yet lightweight 4x5" pinhole camera. Suitable for use with both film and photographic paper.

- Exceptionally durable and easy to use
- 72mm wide angle cone with 0.35mm chemically etched pinhole
- Tripod mounting sockets for both portrait and landscape orientation
- Includes the ILFORD PHOTO pinhole exposure calculator

SINGLE USE CAMERAS

HP5 PLUS SINGLE USE CAMERA

Single use, black & white camera with 27 exposures of HP5 PLUS ISO 400 film.

- Built-in flash
- Ideal for a variety of indoor and outdoor events including: parties, festivals, weddings as well as street photography

XP2 SUPER SINGLE USE CAMERA

Single use, black & white camera with 27 exposures of XP2 SUPER ISO 400 film.

- Built-in flash
- Easy to use, fun camera with the added convenience of C41 processing (this means it can be processed at most high-street photo labs)