

Fotospeed Fotospeed

Fotospeed®

Product Range

TECHNICAL DATA BOOKLET

1999 - 2000

INTRODUCTION

We are pleased to once again reaffirm our commitment to the photographer's art and within the pages of this, the latest issue of our Technical Data Booklet you will find many new and innovative products have been added to our range of black and white chemistry and B&W Papers.

Our B&W Papers now include an RCVC paper in Glossy and Oyster surfaces, an FBVC paper and a LITH paper specifically made for Lith Printing. There will also soon be an RCVC paper with a warmtone base bringing the range of Fotospeed papers to no less than seven! including Tapestry and Fotolinen.

Added to the range of B&W chemistry is WT10 Warm Tone Developer which unlike all the others maintains the contrast of the print. Our Grade Select Print Developer will be available from April onwards. This is a unique developer which, using the development process enables the user to change the contrast of the paper through the chemistry.

For the digital photographer we have launched a specialist range of Photo Quality Inkjet Papers which deliver the highest quality ink jet image and have the traditional feel of a fine art print. Artist Classic being our flagship.

As well as detailed technical data on all Fotospeed products you will find a wealth of useful printing and processing information and of course our extensive guide to toning.

As Fotospeed continues to expand its product range, availability (worldwide our products are now available in 32 countries) couldn't be easier. Your local dealer can obtain any product for you but if you have any difficulties with supply phone our Customer Service Department who will be happy to assist.

Our customers' satisfaction is still our driving force, so if you need any further technical information or if you have any query about any of our products then please 'phone me direct on 01225 811622 and I will be happy to help.

John Herlinger
Managing Director

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BLACK AND WHITE

Fotospeed B&W Chemistry is designed to be second to none and we believe we have accomplished this. If you need advice about an equivalent Fotospeed product compared to your existing chemistry, then phone for good solid advice on 01225 810596. We are always happy to help.

FD10

Fine Grain One Shot Film Developer

Concentrate

Code	Size
FS02110	250 mls
FS02120	500 mls
FS02130	1 Ltr
FS02140	5 Ltrs

SEE OUTSIDE
BACK COVER FOR
FILM PROCESSING
TIME / TEMP.
CHART

Fotospeed FD10 is a fine grain black & white film developer concentrate giving rated film speed and the high edge sharpness expected from solvent type developers. It is a one shot developer which gives identical results on each occasion with the need to store stock solution eliminated.

MIXING INSTRUCTIONS

Fotospeed FD10 concentrate should be diluted by measuring the required amount of concentrate into a measure and adding water to the required volume. Two dilution ratios are given. Dilute either 1+9 or 1+14 at 20°C. Normal tank practice should be followed for agitation ensuring that the tank is tapped on the bench after filling with developer to dislodge any air bubbles that may adhere to the film. Normal contrast refers to the use of enlargers fitted with a condenser lamphouse, and high contrast refers to the use of enlargers

fitted with a diffuser or colour mixing head.

ROTARY

FD10 is suitable for rotary drum use. Due to continuous agitation, processing times should be reduced by 15% to those published.

STORAGE

A full tightly capped bottle of Fotospeed FD10 will keep for at least one year and a half full bottle for about four months.

The following table gives a GUIDE for processing times. Tests should be carried out to ensure the contrast obtained at these times is suited to the enlarger light source. Contrast can be increased by extending the processing times over those published. If in doubt to the suitability of a time shown for a particular film then we recommend that you make a clip test by cutting a short length off the film to be processed and process the piece to test.

FILM	FD10 1+9 @ 20°C CONTRAST REQUIRED		FD10 1+14 @ 20°C CONTRAST REQUIRED	
	NORMAL	HIGH	NORMAL	HIGH
	MINUTES	MINUTES	MINUTES	MINUTES
AGFA PAN APX400	7	10	12	19
AGFA PAN APX100	5	9	11	16
AGFA PAN APX25	4	8	10	14
FUJI NEOPAN 1600	10	12	14	22
FUJI NEOPAN 400	10	12	14	22
KODAK TRI X 400	9	11	13	21
KODAK PLUS X 125	7	8	10	15
KODAK TECH. PAN 25	4	6	7	9
KODAK TMAX 3200	13	15	17	22
KODAK TMAX 400	11	13	15	21
KODAK TMAX 100	9	11	13	20
KODAK PANCHROMATIC 200	10	13	16	21
ILFORD DELTA PROFESSIONAL 3200	11	13	14	20
ILFORD DELTA PROFESSIONAL 400	8	10	12	19
ILFORD DELTA PROFESSIONAL 100	7	9	13	17
ILFORD HP5 PLUS 400	7	10	11	16
ILFORD FP4 PLUS 125	6	8	9	12
ILFORD PAN F PLUS 50	4	5	6	8
ILFORD SFX200	10	12	14	17
FORTEPAN 400	7	10	11	16
FORTEPAN 100	6	8	9	12
ACUPAN 800	9	11	13	20
ACUPAN 200	6	8	9	12
JESSOP PAN 400	6	8	9	12
JESSOP PAN 100	5	7	8	11
INFRA-RED FILM				
KODAK INFRA-RED	12	-	-	-
KONICA INFRA-RED	11	-	-	-

Fotospeed FD30 is a liquid concentrate black & white film developer suitable for manual and machine processing which permits an increase in film speed rating by up to three stops within acceptable processing times. Edge sharpness and shadow detail are retained over the range with no appreciable increase in grain size. Rated film speed is achieved with a short processing time at the higher dilution. An increase in film speed and contrast is achieved by a combination of extended processing times and/or reduced dilution. A slight increase in normal background density may be experienced at the highest speed rating but final prints will exhibit good tonal qualities throughout the range.

MIXING INSTRUCTIONS

Fotospeed FD30 concentrate should be diluted by measuring the required amount of water into a measure and adding FD30 concentrate to the required volume. We recommend that the bottle be inverted three times prior to pouring. Three dilution ratios are given. Dilute either 1+9, 1+7 or 1+5 at 20°C and follow normal tank practice for agitation ensuring that the tank is tapped on the bench after filling with developer to dislodge any air bubbles that may adhere to the film.

DEEP TANK PROCESSING

Fotospeed FD30 concentrate is suitable for deep tank use. A dilution of 1+9 provides the flexibility to process a wide variety of manufacturers' film types at rated film speed with

the option to push process up to 3 stops. In the deep tank situation processing times should be increased by 10% over those published. The solution should be replenished at the rate of 20ml per 135/36 Exp, 120 roll or 8x10in sheet at a dilution of 1+7. This can be done every ten films.

ROTARY DRUM PROCESSORS

Fotospeed FD30 is suitable for rotary drum use. Due to its continuous agitation, processing times should be reduced by 15% to those published.

STORAGE

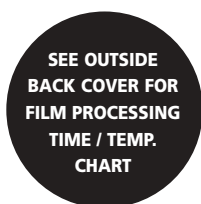
A full capped bottle of Fotospeed FD30 will keep for up to 2 years and a half full bottle for about 6 months

FD30

Fine Grain
Push Process
Film Developer

Concentrate

Code	Size
FS02310	250 ml
FS02320	500 ml
FS02330	1 Ltr
FS02340	5 Ltrs



The following table gives a GUIDE for processing times. Tests should be carried out to ensure the contrast obtained at these times is suited to the enlarger light source. Contrast can be increased by extending the processing times over those published. If in doubt to the suitability of a time shown for a particular film then we recommend that you make a clip test by cutting a short length off the film to be processed and process the piece to test.

ALL @ 20°C, TIMES IN MINUTES									
	SPEED	FD30 1+9	FD30 1+7	FD30 1+5		SPEED	FD30 1+9	FD30 1+7	FD30 1+5
AGFA PAN 400	@ 400 @ 800 @ 1600 @ 3200	5 8 11 17	* 7 10 15	* 5 8 12	ILFORD DELTA PROFESSIONAL 3200	@ 3200 @ 6400 @ 12800	9 14 21	6½ 10 15	5 8 11
AGFA PAN APX100	@ 100 @ 200 @ 400	6 10 15	5 8 12	* 7 10	ILFORD DELTA PROFESSIONAL 400	@ 400 @ 800 @ 1600 @ 3200	9 13 19 *	6½ 9 13 20	5 7 10 15
AGFA PAN APX25	@ 25 @ 50 @ 100	5 7 10	* 5 8	* * 6	ILFORD DELTA PROFESSIONAL 100	@ 100 @ 200 @ 400 @ 800	7 10 15 23	6 8 13 20	4 6 10 15
FUJI NEOPAN 1600	@ 1600 @ 3200 @ 6400	7 10 15	5 8 12	4 7 10	ILFORD SFX200	@ 200 @ 400 @ 800 @ 1600 @ 3200	7½ 12 17 25 *	6 9 14 20 *	4½ 7 11 16 24
FUJI NEOPAN 400	@ 400 @ 800 @ 1600 @ 3200	5 7 10 15	* 5 7 10	* * 5 8	ILFORD HP5 PLUS 400	@ 400 @ 800 @ 1600 @ 3200 @ 6400	6 9 15 22 *	5 7 10 16 24	4 5 8 12 18
KODAK TRI-X 400	@ 400 @ 800 @ 1600 @ 3200	6 9 15 23	5 7 10 16	4 5 8 12	ILFORD FP4 PLUS 125	@ 125 @ 250 @ 500 @ 1000	5 7 13 *	4 6 9 15	3 4 7 11
KODAK PLUS-X	@ 125 @ 250 @ 500 @ 1000	5 7 13 20	4 6 9 15	3 4 7 11	ILFORD PAN F	@ 50 @ 100	5 7	4 6	3 5
KODAK TMAX 3200	@ 3200 @ 6400 @ 13800	9 14 21	7 11 12	5 8 10	FORTEPAN 400	@ 400 @ 800 @ 1600 @ 3200	6 9 15 *	5 7 10 14	4 5 8 12
KODAK TMAX 400	@ 400 @ 800 @ 1600 @ 3200	6 9 15 23	5 7 10 16	4 5 8 1	FORTEPAN 100	@ 100 @ 200 @ 400 @ 800	5 7 13 *	4 6 9 15	3 4 7 11
KODAK TMAX 100	@ 100 @ 200 @ 400 @ 800 @ 1600 @ 3200	5½ 6 8 11 16 20	4 5 7 9 14 18	* 4 6 7 11 16	JESSOP PAN 400	@ 200 @ 400 @ 800 @ 1600	5 7 13 *	4 6 9 15	3 4 7 11
KODAK TECHPAN 25	@ 25 @ 160	3 10	* 8	* 7	JESSOP PAN 100	@ 100 @ 200	6 9	4 6	* 4
KODAK RECORDING FILM 2475		8	*	*					

* = NOT RECOMMENDED

B&W CHEMISTRY

PD5

Universal Print Developer

Concentrate

Code	Size
FS02510	250 mls
FS02520	500 mls
FS02530	1 Ltr
FS02540	5 Ltrs

Fotospeed PD5 print developer is a phenidone/hydroquinone developer concentrate designed for black and white paper both resin coated and fibre based. PD5 is also suitable for processing sheet film.

MIXING INSTRUCTIONS

Paper: For resin coated and fibre based papers dilutions of either 1+9 or 1+4 may be selected according to conditions outlined below.

DILUTION	TEMPERATURE	DEVELOPMENT TIME
1+9	20	90-120 SECONDS
1+4	20	45-75 SECONDS

CAPACITY

The following table is for use with resin coated or fibre based paper

DILUTION	20X25CM SHEETS/LTR.
1+9	50
1+4	70

Film: A wide range of sheet film can be processed in Fotospeed PD5 where subsequent enlargement is limited. A dilution of 1+9 should be used and a development time of 4 minutes at 20°C with continuous agitation should be regarded as a starting point.

STORAGE

A full tightly capped bottle of Fotospeed PD5 will keep for one year and a half full bottle for about four months. During use, Fotospeed PD5 will keep in good condition for about 24 hours in an open dish and for about one week in a deep tank with floating lid.

DV10

Varigrade Print Developer

Concentrate

Code	Size
FS02710	250 mls
FS02720	500 mls
FS02730	1 Ltr
FS02740	5 Ltrs

Fotospeed DV10 is a varigrade dish PQ developer formulated to give a short induction time in dish use to permit the rapid processing of resin coated papers where development is completed in 60 seconds

MIXING INSTRUCTIONS AND USE

DV10 should be diluted 1+9 with water and ideally used at 20°C. The image will appear in 5-10 seconds and development completed in 60 seconds. Development time can be reduced to compensate for over exposure but immersion time should not be shorter than 30 seconds. Alternatively, development time can be extended to compensate for under exposure. However, to obtain perfect tonal range the correct exposure is preferable.

CAPACITY

50 sheets of 8x10in paper can be processed in 1Ltr of DV10 working solution diluted at 1+9.

STORAGE

A full tightly capped bottle of Fotospeed DV10 will keep for one year and a half full bottle for about four months. During use, Fotospeed DV10 will keep in good condition for about 24 hours in an open dish and for about one week in a deep tank with floating lid.

LD20

Lith Developer

To make

Code	Size
FS02420	4 Ltrs Min.

Fotospeed LD20 is supplied as a two part concentrate which dilutes to make a single working solution. Particularly efficient for infectious development of papers such as, Fotospeed LITH, Fotospeed Tapestry and Kentmere Kentona. Supplied with full instructions on lith printing.

MIXING INSTRUCTIONS

Fotospeed LD20 is supplied as A+B concentrates (500ml of each). Each Part dilutes 1+3 with water before being mixed together to form the working solution. For infectious development of papers the working solution should be further diluted to achieve the desired effect of grittiness and tint. LD20 comes with full instructions for lith printing and

includes suppressants for 'pepper fogging'. For typical lith printing, where further dilution is required, this kit will make 10Ltrs of working solution.

STORAGE

LD20 will keep for at least two years in unopened bottles. Once opened the contents should be used within two months.

TEST
TUBE

LSK10

Lith Printing Starter kit

Code	
FS02410	Paper & chem

Designed for those wanting to try lith printing. LSK10 comes complete with Fotospeed Lith Paper (10shots 8x10in) and LD20 Lith Developer (to make 3Ltrs at 1+9 dilution) along with concise lith printing instructions to guide the first time lith printer through the maze. For those who get bitten by the lith printing bug then there are the big size papers and bigger size lith developer.

GSD10

Grade Select Print Developer

Concentrate

Code	Size
FS02630	1 Ltr

Fotospeed Grade Select does exactly what the name says. You can select the grade of paper with the developer. Grade Select enables you to make a fixed grade paper into a variable grade paper through the dilution and mixture of the developer. A typical fixed grade paper with a grade of 2.5 can through development be taken from grade 0 to 4. Grade select can also be used as a two bath print developer.

Grade Select is supplied as two 1Ltr concentrated solutions. One a hard developer and the other a soft developer. Each can be used as a single developer (hard or soft), or mixed as

a single solution for the grade required. Dilution is simple with a concise table for selection.

Fotospeed WT10 is a warm tone print developer that maintains the contrast and vibrancy of the image and gives it a warm tone. It also has a good capacity and a long shelf life making it a superior product.

MIXING INSTRUCTIONS

Dilute WT10 1+9 with water to make the working solution. Processing times are 90 seconds for both RC and FB material. Fixation is recommended at 1+4 for FX20 Rapid Fixer - 30 seconds for RC and 60 seconds for FB. Wash as normal.

STORAGE

WT10 will keep in good condition for at least one year in sealed containers. Working solution will keep for several days in tightly capped bottles with the minimum of air.

WT10

Warm Tone
Developer

Concentrate

Code	Size
FS02230	1 Ltr

Fotospeed FX20 Rapid Fixer is a general purpose liquid fixer concentrate that has no hardener added and is suitable for use with a wide range of B&W photographic materials. FX20 is very long lasting and will not, as with other brands of fixer, bleach back the print's highlights where extended fixing times are desirable.

Where a hardening fixer is required then add RH100 Rapid Hardener to the fixer working solution.

FILM FIXING

Dilute the FX20 1+9 with water and fix for 2 minutes or 1+4 with water for 1 minute. When the clearing time exceeds twice that of fresh fixer then the fixer should be discarded.

PAPER FIXING	1+9	1+4
RC	60 SECS	30SECS
FB	3 MINS	60SECS

STORAGE

FX20 will keep in good condition for at least one year in sealed containers. Working solution will keep for several months in tightly capped bottles with the minimum of air. During use FX20 will keep in good condition for about one week in the open dish and for about two months in a deep tank with a floating lid.

FX20

Super Rapid
Fixer

Concentrate

Code	Size
FS03110	250 mls
FS03120	500 mls
FS03130	1 Ltr
FS03140	5 Ltrs

Fotospeed FX30 is an odourless fixer suitable for all B&W materials. Standard dilution is 1+9. Makes for a pleasant working environment. The use of stop bath is recommended to extend the life of the fixer. Why not use Fotospeed SB50 odourless stop bath with indicator?

DILUTION/TIME (MINS) TABLE	RC		FB	FILM
	1	2	3	
1+4	1	3	2	
1+7	2	5	3	
1+9	3	7	5	

STORAGE

FX30 will keep in good condition for at least one year in sealed containers. Working solution will keep for several months in tightly capped bottles with the minimum of air. During use FX30 will keep in good condition for about 3 days in the open dish.

FX30

Odourless Fixer

Concentrate

Code	Size
FS03430	1 Ltr
FS03440	5 Ltrs

Fotospeed RH100 is a rapid hardener concentrate designed for use with Fotospeed FX20 Rapid Fixer where a hardening fixer solution is required. RH100 will greatly improve the appearance of the film by minimising surface damage and reducing drying marks. RH100 checks the swelling of the film emulsion so that it is less easily damaged and reduces water absorption by the film emulsion so that drying is faster.

MIXING INSTRUCTIONS

RH100 should be added to working strength FX20 Rapid Fixer at the rate of 15mls /Ltr of working strength fixer. **The addition of hardener will require the fixing time to be**

doubled. Never mix RH100 concentrate and Fixer concentrate together.

STORAGE

RH100 will keep for several years in an airtight bottle.

RH100

Rapid Hardener

Concentrate

Code	Size
FS03220	500 mls

Fotospeed SB40 Stop Bath is an acid stop bath incorporating an indicator dye to warn of exhaustion. Stop bath causes development to cease immediately on contact to ensure clear highlights in paper and low fog on film. The use of stop bath also ensures that the fixer is protected from carry-over from the developer ensuring optimum fixer life

WARNING

SB40 Stop bath should not be used beyond exhaustion and should be changed as soon as the colour change from **yellow to purple** is observed.

materials. Stronger or weaker dilutions can be used but 1+29 is the optimum. **Stop time - 10 secs at 20°C**

STORAGE

Fotospeed SB40 in full tightly capped bottles will last at least one year.

SB40

Indicator Stop
Bath

Concentrate

Code	Size
FS04110	250 mls
FS04120	500 mls
FS04130	1 Ltr
FS04140	5 Ltr

MIXING INSTRUCTIONS

The concentrate should be diluted 1+29 with water for use with both film and paper. Suitable for both B&W and Colour

Fotospeed SB50 is an odourless stop bath with indicator dye to warn of exhaustion. Makes for a more pleasant darkroom environment due to its odourless formula. SB50 dilutes 1+19 with water.

WARNING

SB50 Stop bath should not be used beyond exhaustion it should be changed when the **yellow to blue** colour change is observed.

with both film and paper Suitable for both B&W and Colour materials. **Stop time - 20 secs at 20°C.** A natural complement to FX30.

STORAGE

Fotospeed SB50 in full tightly capped bottles will last at least one year.

SB50

Indicator Stop
Bath/ Odourless

Concentrate

Code	Size
FS04230	1 Ltr
FS04240	5 Ltr

MIXING INSTRUCTIONS

The concentrate should be diluted 1+19 with water for use

B&W CHEMISTRY/B&W MACHINE CHEMISTRY & FILM

RA50

Rinse Aid

Concentrate

Code	Size
FS05120	500 mls

Fotospeed RA50 is a highly concentrated liquid designed to greatly reduce surface tension to allow the easy dispersion of water from the surface of photographic materials without damaging the emulsion. Used in the final rinse, it noticeably promotes streak free drying of film and shortens drying times.

MIXING INSTRUCTIONS

RA50 should be added to the final rinse in the ratio of 1 part RA50 to 200 parts water. i.e. 5mls /Ltr of water.

STORAGE

RA50 concentrate will keep for several years in sealed bottles.

WA50

Wash Aid

Concentrate

Code	Size
FS05230	1 Ltr

WA50 is specifically designed to speed the removal of fixing agents from the fibres of the paper. Dilutes 1+9 to make the volume required.

INSTRUCTIONS

After fully fixing the print, wash in running water for 5 mins. Then soak print in a tray of WA50 working solution for 10 mins with intermittent agitation. Return print to running water for a final 5 mins then remove print to dry. Total

washing time 20 mins and all fixer removed.

1Ltr of working solution will treat approx. 40 - 8x10 fibre prints D/W.

CD11

Machine
Print
Developer

Concentrate

Code	Size
FS02830	1 Ltr
FS02840	5 Ltrs

Fotospeed CD11 & CF41 machine chemistry comprises a developer/replenisher and a fixer /replenisher and is supplied as a liquid concentrate. These chemicals are intended for use at normal rapid access processing temperatures (30-32°C) where fully processed and dried prints can be viewed about 70 seconds after feed in. At machine processing temperatures CD11 developer gives similar speed, contrast and quality to that expected from conventional dish processing. However, as a system designed to be replenished, it may be used for several months before being replaced with fresh solutions.

CD11 and CF41 are available in 1 litre concentrates for in use in Nova Slot and Durst Printo processors where the advantages of fast B/W print processing are desirable, but the requirement for 5 litre concentrates are not.

MIXING INSTRUCTIONS

CD11 developer and CF41 fixer are designed to be made up in the machine replenisher tanks. Care should be taken not to splash chemicals when mixing as this can lead to contamination. Dilute CD11 developer/replenisher 1+4 with water to make working strength developer. Dilute CF41 fixer/replenisher 1+4 with water to make working strength fixer.

This will vary according to the individual processing conditions, but the table below may be used as a guide.

STORAGE

Both CD11 and CF41 will keep for at least one year in sealed bottles.

GUIDE TO REPLENISHMENT

CD11 DEVELOPER REPLENISHER	55ml/MINUTE (150mls/M² OF PROCESSED PAPER)
CD41 FIXER REPLENISHER	90ml/MINUTE (150mls/M² OF PROCESSED PAPER)

The above values are equivalent to 15ml and 25ml of developer and fixer respectively, for every two 8x10in prints processed.

DF4

Non Replenish
Developer and
Fixer for 2150

Dev. & Fix. Concentrate

Code	Size
FS08220	2x4Ltrs

Designed for use solely with the Ilford 2150 table top processors, DF4 comprises 4Ltrs of both Developer and Fixer concentrate ready to load into the machine. DF4 is available in 2x4Ltrs (4Ltrs developer and 4Ltrs fixer). The product will keep for at least two weeks in the machine.

MIXING

Pour the concentrate from each bottle into the respective tank in the machine and close the lid. The machine will automatically mix the chemistry.

STORAGE

DF4 chemistry will keep for one year in full tightly capped bottles.

FORTEPAN

B/W Film

Film

Code	Size-(ISO)	Pack
FS43220	135/36-(100)	10
FS44210	135/30m-(100)	1
FS41220	120-(100)	10
FS42310	5x4(25)-(200)	1
FS43420	135/36-(400)	10
FS44410	135/30m-(400)	1
FS41420	120-(400)	10
FS42410	5x4(25)-(400)	1

B&W FILM

A high quality B&W film at a competitive price. Available in ISO100 and ISO400, this film gives fine grain with good edge sharpness and contrast. Shadow detail is well defined and the film gives good results even under 3 stops push processing in Fotospeed FD30.

Being of traditional technology, this film can be reticulated and the grain size can easily be increased where the need for large grain is required.

B&W PRINTING TIPS

Written by and the copyright of
Les McLean

INTRODUCTION

Making a black and white print is governed by a number of factors, one being the quality of the negative. In an ideal world all negatives would be perfect with good contrast and information in both highlights and shadows. However, it is not a perfect world and the best negative on any roll of film exposed is usually the one that is somewhat less than perfect and consequently needs some darkroom work at the printing stage. The following tips are some of the techniques and methods I have used in the past 20 years of printmaking. Use them as a starting point and modify to suit your own judgement and taste.

THE NEGATIVE

Generally, negatives can be divided into three categories, or levels of contrast - normal, high and low. Normal and high contrast negatives can usually be printed using either normal grades of paper or by split grade printing. Low contrast negatives require a different approach. I will start with some general tips on method and discipline in the darkroom and which apply to any type of negative. The second part of these hints will deal with split grade printing and getting a print out of those low contrast or "thin" negatives.

EXPOSURE

Correct exposure is essential in print making. Therefore never guess the exposure you intend to give a print, always make a test strip. A correctly made test strip is an important reference in producing a high quality black and white print. Keep the increments of time used for each step as short as possible and the information gained from the test strip will be more precise. Using a soft pencil I sometimes mark each division on the test strip as I expose it to help me see the steps more clearly. Never choose the first or the last increment on a test strip for you will have no reference point, and will not know if a shorter or longer exposure would have been better.

DEVELOPMENT

Ensure that the developer is maintained at it's correct working temperature during any printing session otherwise consistency will suffer. Manufacturers information relating to time, temperature and dilution is a good starting point, but remember that different results and effects can be obtained by changing these factors. When experimenting, change only one factor at a time to ensure that you know how it will affect the final print. For example, increasing exposure and reducing development is likely to produce a slight warming of the image colour.

FIXING THE PRINT

Fixing the print, especially fibre paper, is a critical stage. Do not overuse the fixer solution, to do so will risk the print being insufficiently fixed and liable to irreversible staining. Over use of the fixer can also result in other salts, which are difficult to wash out, being built up in the fibres of the paper. I fix my fibre prints for exactly one minute

in double strength fixer (1+4 for Fotospeed FX20 and Ilford Hypam) and have had no staining problems in the 15 years I have used this method. Another benefit is that this method reduces washing time.

WASHING PRINTS

To ensure archival permanence it is essential that fibre prints are properly washed. In conjunction with the fixing sequence outlined above I have used the following procedure to wash my prints for the past 15 years. Having fixed the print as described I transfer it to a holding tray which has a slow trickle of water passing through from a hose attached to a tap. After 5 minutes I transfer the print into a hypo eliminator bath (Fotospeed WA50 Wash Aid 1+9 or Ilford Washaid 1+4) for the time recommended by the manufacturer (10 minutes). Finally, the print is transferred into an archival washer for 20 minutes. Should you not have an archival print washer, then use a tray for print washing, but remember that each time you add a print to those partially washed already in the tray, they will be affected by the fixer going into the tray. Therefore, when using a tray for washing it is advisable to wash in batches.

SPLIT GRADE PRINTING

This is a method of printing using variable contrast paper and more than one grade on the same print. Five years ago I devised a method using only grades 0 and 5 where the soft grade deals with highlights and the hard grade adds contrast and richness to the lower values. High contrast negatives give the best results for the system works on the basis that the density of the negative acts as a mask when adding the hard filtration on exposure. The basic procedure in making prints using this method is as follows:-

Dial in the grade 0 filtration (100 Yellow on a colour head) and expose a test strip in the normal way. When developed examine and decide on the correct exposure for the highlight. Ignore the contrast and the density of the dark values and shadows. Place a second test strip on the base board and expose the whole strip for the time selected. Leave the test strip in place, dial out grade 0, dial in grade 5 (maximum Magenta on a colour head) and make a second series of test strip exposures over the already exposed strip. Develop the test strip and examine. You will see the density in the lower values has been established and the

contrast increased. Select the strip you feel gives the result you like and expose the whole sheet of paper to the grade 0 and grade 5 times chosen. Using this method the contrast of the final print can be manipulated by careful control of the exposures given to soft and hard filtration. More soft filtration means lower contrast while increasing the hard filtration will result in higher contrast.

PRINTING THIN NEGATIVES

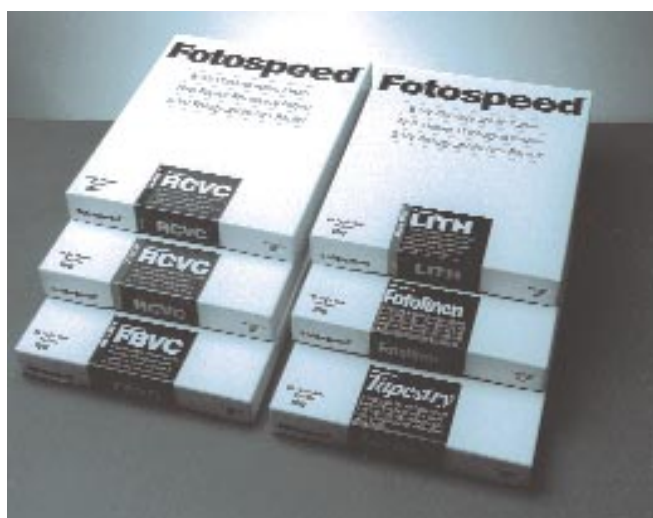
Split grade printing will not work when the negative is "thin" or low in contrast. The low contrast is partly due to under exposure and perhaps insufficient development. I have found the best way to print such a negative is to use grade 5 (maximum magenta on a colour head) only combined with careful control of time. Grade 5 gives maximum separation to the thin areas of a low contrast negative and careful timing enables you to give the precise exposure to achieve maximum black through the thinnest part of the negative.

DRYING FIBRE PRINTS

Before drying fibre prints it is essential to get as much of the surface water from both sides of the print by either the use of a squeegee or by wiping both surfaces with absorbent material ensuring that when you change sides you also dry the base material so as not to carry water to the already dried side.

Once this is done then the print should be laid face down on preferably a drying screen or if a drying screen is unavailable then on a clean lint free material. It is most important that the print is emulsion side down since this will ensure that the print dries as flat as possible. The print should be allowed to dry naturally to minimise the curl of the print.

After the print is dry then you can place the print(s) under a heavy book or similar to complete the flattening process. If you have access to a dry mount press then even better. Give it one minute on medium to high heat with the print between two pieces of white museum board.



B&W PAPERS

B&W PAPERS

TAPESTRY

B/W Fibre Paper

Code	Size(Ins)	Pack
FS09210	8x10	10
FS09430	9½x12	50
FS09510	12x16	10
FS09530	12x16	50
FS09610	16x20	10
FS09630	16x20	50

Fotospeed Tapestry is a fixed grade fine-art triple-weight premium fibre paper on a luxury 240g/m2 fibre base with a warm tone chlorobromide emulsion. It has a textural surface similar to an artist's canvas. With its specialist chlorobromide emulsion, Tapestry is very responsive to warm tone developers which enhance the image warmth. Tapestry tones beautifully and is highly suited for lith printing.

RCVC Glossy

Resin Coated Variable Contrast

Code	Size(Ins)	Pack
FS21112	5x7	25
FS21114	5x7	100
FS21914	7x9½	100
FS21212	8x10	25
FS21214	8x10	100
FS21413	9½x12	50
FS21511	12x16	10
FS21513	12x16	50
FS21611	16x20	10
FS21613	16x20	50

RCVC is a neutral to warm tone resin paper with a chlorobromide emulsion capable of recording grade 0 to 5 with the use of proprietary variable contrast filter or with the yellow and magenta channels on a colour head enlarger. RCVC is suitable for both dish (60 secs development in Fotospeed DV10 Varigrade Developer at 1+9) and roller transport processing (where dry to dry time is 57 secs or faster). RCVC is available in two surfaces

RCVC Oyster

Resin Coated Variable Contrast

Code	Size(Ins)	Pack
FS21122	5x7	25
FS21124	5x7	100
FS21924	7x9½	100
FS21222	8x10	25
FS21224	8x10	100
FS21423	9½x12	50
FS21521	12x16	10
FS21523	12x16	50
FS21621	16x20	10
FS21623	16x20	50

FBVC

Fibre Based Variable Contrast

Code	Size(Ins)	Pack
FS23212	8x10	25
FS23214	8x10	100
FS23413	9½x12	50
FS23511	12x16	10
FS23513	12x16	50
FS23611	16x20	10
FS23613	16x20	50

FBVC is a neutral tone double weight fibre paper capable of recording grade 0 to 5 with proprietary variable contrast filters or with the yellow and magenta channels on a colour head enlarger. FBVC reacts favourably with different developers such as Fotospeed WT10 WarmTone Developer or Fotospeed PD5 Universal Print Developer. Fixation should be at 1+4 for 60 seconds preferably in Fotospeed FX20 Rapid Fixer. See tips to printing on the previous page. FBVC is available in Glossy only and in a range of sizes as shown to the left.

LITH

Fibre Based

Code	Size(Ins)	Pack
FS25531	12x16	10
FS25533	12x16	50
FS25631	16x20	10
FS25633	16x20	50

LITH is specifically designed for lith printing where the paper is given a long exposure followed by development in very dilute Lith developer and where development can take anything from 5 minutes to 30 minutes. Fotospeed LITH comes with an eggshell surface and after development should be fixed as normal. Fotospeed LD20 Lith Developer is recommended since it comes with concise instructions for lith printing and is supplied with additional components to assist with the lith process. Fotospeed LITH can be used for normal printing and gives a grade 3 when put through regular print developer. Fotospeed LITH is available in the sizes as shown to the left.

FOTOLINEN

Linen Based B/W "Paper"

Code	Size(Cms)	Pack
FS01210	20.3x25.4	10
FS01510	30.5x40.6	10
FS01700	120cmx2.5m	Roll
FS01800	120cmx10m	Roll

Fotospeed Fotolinen is a specially coated linen with an emulsion equivalent to grade 3. Being precoated, it is as tough as normal fibre paper but with the texture and flexibility of the linen base. Toning and handcolouring give endless possibilities to this unique medium. Processing is as for 'normal' papers however the use of Fotospeed DV10 developer at 1+9 and FX20 fixer at 1+9 proves a very reliable combination. Washing should take 20 minutes in running water and Fotolinen should be allowed to dry naturally. Once dry it can be smoothed by use of a cool iron (wool setting) on the non emulsion side.

COLOUR

Fotospeed colour chemistry is innovative and delivers excellent results. We have introduced some unique and clever products to our colour portfolio which feature performance, efficiency, and longevity. Considerable research and development has gone into Fotospeed colour chemicals recently and we are now proud to say that we have range of colour chemistry to suit virtually every application.

Fotospeed CK3E6 has been completely reformulated, this 3 Bath E-6 now performs effortlessly with new technology E-6 films such as Elite, Provia and Velvia as well as all other E-6 films. Bleach-fixing time is now down to just six minutes. The Chemicals come in a highly concentrated form which means less is needed to make the required volume.

DESCRIPTION

CK3E6 will process E6 film through rotary processors (such as the Jobo ATL range), deep tanks or hand held tanks. It is compatible with all slide films designed for the E6 process. Processing steps are: First Developer, Colour Developer, BleachFix, with a final optional stabiliser/rinse aid. The solutions are designed to give optimum results with all existing and the new generation films where the standard

processing temperature is 38°C (100°F).

This new improved 3 Bath E6 chemistry gives neutral tones producing transparencies perfect for colour separation.

CONTENTS

Each kit contains six bottles. The bottles represent the following parts: First Developer, Colour Developer A and B, Bleach Fix A and B and Stabiliser/rinse aid.

CK3E6

3 Bath E6
Processing Kit

To make

Code	Size
FS18150	600mls
FS18170	1200mls
FS18190	5 Ltrs

Fotospeed CKRA4 is a newly reformulated two bath chemical system designed for the processing of all RA4 compatible colour printing papers where prints are made from colour negatives. The chemicals are supplied as liquid concentrates which make up Developer/Replenisher and Bleach Fix/Replenisher working solutions. The working solutions can be either used to exhaustion and discarded or replenished.

AVAILABILITY, MIXING AND PROCESSING

Fotospeed CKRA4 is supplied either as a Kit to make 2.5Ltr containing both Developer and Bleach Fix or in packs to make 5Ltr of Developer or Bleach Fix which are available separately. Partial mixing of the concentrates to make small quantities of working solution is detailed in the user instructions with every kit.

STORAGE AND CAPACITY OF SOLUTIONS

The concentrates are specifically designed to exhibit long, stable storage characteristics. Once opened, the concentrates will keep up to six months, providing they are stored with a minimum of air space and the bottles tightly stoppered. Working strength solutions used without replenishment will keep up to six weeks when stored in air free tightly stoppered bottles. Solutions that are being replenished either in a roller processor or a Nova slot will last at least two months in situ. Each litre of Developer working solution will process a maximum of 2 sq. metre and each litre of Bleach Fix a maximum of 3 sq. metres. Full detailed instructions for using Fotospeed CKRA4 in a variety of techniques, along with step by step guides and precautionary information are included with every kit.

TEMPERATURE

Optimum results are obtained at a temperature of 35°C(95°F) where a 45 second Development and a 45 second Bleach Fix produce perfect colour prints on RA4 compatible paper. CKRA4 can be used in roller transport processors, Nova slot, Rotary Drum or conventional dish. Where longer processing times are desirable, the processing temperatures can be reduced and the times extended.

CKRA4

RA4 Colour
Print Chemistry

To Make

Code	Size
FS18280	2.5Ltr Kit
FS18290	5 Ltr Dev
FS18299	5 Ltr Bl/Fx

MONO RA4 Print Processing chemistry, with room temperature processing of 60secs development and bleachfixation at 20°C(68°F). MONO concentrate means single solution Developer and Bleachfix concentrates, which makes dilution clean and simple. The active ingredients are in powder form in the concentrate which extends the keeping properties of the concentrate and the active life of the working solution. Shaking the bottle before mixing puts the ingredients into suspension to enable partial mixing of the concentrate.

DESCRIPTION

Dilute concentrates 1+4 to make volume required. Each litre of working solution will process at least 3 sq metres of material (60 sheets of 8x10) unreplenished and without any filtration or exposure alterations. Alternatively the solutions can be replenished. Processing between 18°C(64.5°F) to 25°C(77°F). At 18°C(64.5°F) processing time 90secs and at

25°C(77°F) 30secs. This allows colour processing to be done in processing dishes at room temperature.

The chemistry is odour less.

When using Novas and Printos set to 22°C(72°F) for 45sec processing.

Once diluted with water the active ingredients go into solution and do not settle out again.

CKRA4/RT

MONO RA4
Room
Temperature

To Make

Code	Size
FS18240	1 Ltr Kit
FS18250	3 Ltr Kit
FS18261	6 Ltr Dev
FS18262	6 Ltr Bl/Fx

Prints from Transparencies. An extremely simple conversion kit to transform Fotospeed MONO RA4/RT chemistry (above) into chemistry for processing R3 papers for making prints from transparencies at room temperature.

DESCRIPTION

Used in conjunction with MONO CKA4/RT, the Transformer Kit comprises: First Developer and an additive for the MONO RA4/RT developer. The Bleachfix from the Mono RA4/RT is used in this process. Processing is at Room Temperature (18 -

24°C) and the appropriate processing time selected. At 20°C(68°F) the whole process including all washes is 15¹/₄ minutes and at 24°C(75°F) is 11³/₄ minutes. This process can be done in standard trays with no expensive equipment required.

CKR3/RT

R3 Transformer Kit

To Make

Code	Size
FS18340	1 Ltr Kit
FS18350	3 Ltr Kit

COLOUR CHEMISTRY / COLOUR CORRECTION CHART

PKC41

C41 Press Kit

To Make

Code	Size
FS18520	900 mls
FS18530	3 Ltrs

A C41 Colour Negative processing kit packaged to suit press photographers on the move. This new generation C41 process kit is simple to use, with one bottle of developer and one bottle of bleachfix. The latest chemical technology delivers high quality development and rapid bleach fixation. Already widely acclaimed by press photographers, PKC41 film chemistry is ideal for all C41 compatible films including Ilford XP2 and the new Kodak TMax CN film.

Both Developer and Bleachfix dilute 1+2 to make the required volume of working solution.

CPS100

Colour Print Brightener & Stabiliser

Concentrate

Code	Size
FS18220	1 Ltr
FS18230	5 Ltr

Fotospeed CPS100 is a unique product which brightens colours, whitens the base white, stabilises the print, and can be used to replace final washing. Dilutes 1+9 to make the working solution.

DESCRIPTION

The unique formula of CPS100 will brighten and whiten your colour prints and can be used to improve previously processed material. It is designed to perform with RA4 and R3 colour print material. Its stabilising qualities will greatly increase the life of your prints by up to 40%. CPS100 can be used either after washing or in place of washing. Dilutes 1+9 with water. CPS100 is not suitable for stabilising film nor does it have any effect on Ilfochrome paper.

CAPACITY

NUMBER OF 8X10 PRINTS PER LTR OF WORKING SOLUTION	
NO WASHING	20 (1m ²)
BRIEF RINSE	40 (2m ²)
FULLY WASHED	60 (3m ²)

After treating a print in CPS100 DO NOT WASH - simply dry the print.

CKFP

Universal Colour Chemistry

To Make

Code	Size
FS18410	2.5 Ltrs

Fotospeed CKFP is a truly universal colour chemistry for processing C41, EP2 and RA4 material through the same solution. There are no additional additives and mixing is simple with one developer concentrate and one bleach fix concentrate.

MIXING INSTRUCTIONS

CKFP is supplied as a kit to make 2.5 litres of working solution of developer and bleach fix. Supplied in 1Ltr concentrates, partial mixing is simple. Developer and Bleachfix dilute 1+1½ to make the volume required.

STORAGE

CKFP has a Best Before date on the box and unopened concentrates should be used by that date. Opened concentrates will keep for 4 months in tightly stoppered bottles.

CB15

Colour Print Bleacher

Ready to use

Code	Size
FS07720	3 x 15 mls

Fotospeed CB15 Colour Print Bleacher is a two part working solution which removes dark blemishes from colour prints including Cibachrome/Ilfochrome and similar material. When black spots appear from dust on Pos/Pos material, or from damaged negatives on Neg/Pos material, or if you simply wish to remove the background or an object from the colour print. The chemical removes the image and leaves the area white, ready for retouching.

COLOUR CAST CORRECTION CHART

NEGATIVE in the enlarger	COLOUR CAST	TRANSPARENCY in the enlarger
Add YELLOW	YELLOW	Subtract YELLOW
Add MAGENTA	MAGENTA	Subtract MAGENTA
Subtract YELLOW & MAGENTA	CYAN	Subtract CYAN
Subtract YELLOW	BLUE	Add YELLOW
Subtract MAGENTA	GREEN	Add MAGENTA
Add YELLOW & MAGENTA	RED	Add CYAN

ALTERNATIVE PROCESSES

Photographic processes which we know today have evolved over many years from the skills and experimentation of many famous and some less well known Masters of the Art. The photographic processes which these Masters developed, utilised many different types of light sensitive media to reproduce a negative image into a positive form. Evocative names such as Cyanotype, Bromoil and Palladium are some of the first principals of the photographer's and printer's art. Fotospeed are committed to pursuing the path of the old processes.

Argyrotpe takes the photographer back to first principals - using a silver based sensitising solution which is coated onto a quality art paper. Exposure by natural sunlight (a UV light source may be used as an alternative. We have found that even on a cloudy day the best exposures are made using natural daylight) development in water and fixation using a simple hypo solution. Argyrotpe prints are brown and warm toned giving good contrast and midtone definition. Being silver based they can then be toned and dyed as they would have been in the early days. All images are made by the contact system, where the image depends on a negative of the appropriate size.

THE ARGYROTYPE KIT -

Contains: Sensitiser 50ml (sufficient for 40 - 8x10in applications), Syringe 2ml, Fabriano paper 5 sheets 8x10in, Kodak direct duplicating film 5 sheets 5x4in, Two glass coating rods 4in and 8in, Hypo crystals, Protective gloves and full detailed

instructions for use.

Sensitiser, Glass coating rods and Hypo are available separately along with traditional contact frames with hinged backs in 8x10in and 12x16in.

Raw chemistry is available on request - please phone.

ARGYRO

Argyrotpe Kit

Code	Size
FS08410	Kit
FS08411	50ml sens.

Cyanotype is in a single solution, and is an updated version of the original process. Using Ammonium Ferric Oxalate to give a good blue that does not wash out, this solution is twice as sensitive to UV as the traditional version. Development in water and citric acid can be used to manipulate contrast. All images are made by the contact system, where the image depends on a negative of the appropriate size.

THE CYANOTYPE KIT -

Contains: Sensitiser 50ml (sufficient for 40 - 8x10in applications), Syringe 2ml, Fabriano paper 5 sheets 8x10in, Two glass coating rods 4in and 8in, Protective gloves and full

detailed instructions for use. Sensitiser, Glass coating rods and Hypo are available separately along with traditional contact frames with hinged backs in 8x10in and 12x16in. Raw chemistry is available on request - please phone.

CYANO

Cyanotype Kit

Code	Size
FS08510	Kit
FS08511	50ml sens.

Fotospeed Bromoil Kit contains : Bleach Tanning Chemistry, Bromoil Paper 8x10in 10 sheets (a non super-coated, low contrast paper on a D/W fibre base - specifically made for the Bromoil process), one real Bromoil brush, 4 Inks (Black, Yellow, Magenta and Cyan), Inking tile, gloves and full detailed instructions.

Bromoil Paper in 12x16(10) and 16x20(10), Inks (black, yellow, magenta, cyan), brushes (in varying sizes) and chemistry are available separately. See price list.

BROMOIL

Bromoil Kit

Code	Size
FS08610	Kit
FS08622	4Ltrs Chem

Glass coating rods made out of 10mm borocillicate glass tube. The size of the rod refers to the straight line portion for coating. The rods are made with handles to hold while coating. The straight line portion is within exacting tollerences to ensure that the sensitiser being coated is applied evenly. It is however important to lay the paper onto which you are coating onto a piece of glass to ensure that the surface is absolutely smooth.

These glass rods are designed for the coating of sensitiser from various alternative processes to ensure an even coating of the sensitiser.

RODS

Glass Rods

Code	Size
FS08412	4" (10cm)
FS08413	7.5" (19cm)
FS08414	11" (28cm)

High quality Beech contact frames made with hinged backs to enable inspection of the material being exposed without deregistering the negative.

FRAMES

Contact Frames

Code	Size
FS08310	8x10"
FS08320	12x16"

ALTERNATIVE PROCESS TIPS

ALTERNATIVE PROCESS TIPS

INTRODUCTION

Alternative printing relies on a contact negative the size of the image you wish to produce being laid in contact with the coated surface of which ever process you have chosen and then exposed to light which is high in Ultra Violet(UV).

This can be from a dedicated UV light source or from the free source of the sun. Sunlight, while the best source, is not reliable and can be erratic from an exposure point of view due to passing clouds, which have a nasty tendency of blocking out the sun during exposure.

The most popular surface to coat onto is heavy weight art paper but this must be a long fibre cotton pulp that is 100% acid free. Obviously you can coat onto fabrics as well but again it is most important that the medium is acid free.

In short the following four points are paramount for the selection of a medium for coating:

The paper or medium should:

- be chemically compatible with the sensitizer.
- have sufficient wet strength to withstand processing.
- fulfill the requirements for archival permanence.
- provide an aesthetically pleasing image surface.

MAKING CONTACT NEGATIVES

This part is the laborious part to alternative processes. There are many ways in the darkroom to making large contact prints. The aim is a negative with good contrast but not too dense to make exposures unbearably long.

1. Kodak Direct Duplicating Film SO-132

Very expensive, very slow and of very low contrast BUT convenient since it makes a negative from a negative. You can work under red safelight in the darkroom with SO-132.

2. Lith Film - easy and good contrast but not direct. Original negative in the enlarger, lith film on base board(emulsion up) and make exposure. Process in print developer at 1+9 for 60 seconds and then fix and wash. You now have a B&W transparency (negative to positive). Take the dry transparency and put it emulsion to emulsion with an unexposed piece of lith film of same size and expose through transparency with white light from enlarger to make contact negative. Process as before and wash and dry. You are now the proud owner of a contact negative with good contrast. All this was done under Red safelight.

3. The computer is a very useful and convenient method of producing a contact negative. Scan your image either from negative or print and using your preferred software produce a negative of the right size on screen. Then print out in B&W through an inkjet printer onto OHP Film. This is a special clear film for inkjet printers with an ink receiving layer and is available from most suppliers including Fotospeed.

The ultimate quality of the silver image process is generally superior to that produced by the the

computer but for alternative processes the inkjet method is generally very sympathetic with the image requirements. Do be aware that you are handling negatives so do handle them with care so that you can use them time and time again.

PAPERS

Your choice of an appropriate paper is critical to the success of this process. The following artists' papers are recommended and should be available from art shops:

- Whatman Watercolour
- Saunders Waterford*
- Fabriano 5*
- Arches Aquarelle*
- Atlantis Silversafe Photostore
- Rives BFK
- Arches RKB
- Arches Platine
- Cranes AS8111
- Cranes Crest Parchment
- Hollingsworth Kent

* these are gelatine sized and should be avoided for pure platinum printing

You should select paper of a weight between 120 and 300 gsm. Light papers clear and wash rapidly, but may be fragile when handled wet; heavy papers are stronger but are slower to wash. For a smooth surface, choose Hot Pressed (HP); if you prefer some texture, choose the 'NOT' surface; with some papers, rough surfaces are also available, but these may result in rather poor definition. Many of these fine papers have two distinctly differing sides as a consequence of their method of manufacture, the so-called 'wire' side shows on close examination under bright light, a very fine mesh pattern. The 'felt' side has a random texture. Either side may be used for your print, depending on your taste.

The best results are obtained on a handmade paper especially designed for alternative processes: Ruscombe Mill's 'Buxton' paper. The specification for optimum performance is a 100% long fibre cotton pulp, internally sized with 'Aqualap', and containing no other additives whatsoever. Papers consisting of a mixture of fibres can cause blotchiness or granularity in the image and papers sized with gelatin may stain. Do not, however, feel discouraged from experimenting with other papers - but please recognise that paper manufacturers, for their own purposes, usually include in their products substances that may interfere with the Argyrotype chemistry, or attack the fine silver image lying within the paper fibres. The sensitizer may also be applied to other surfaces, for example washed cotton or linen textiles, although it may be found best to size these with arrowroot starch before coating.

COATING - ROD V'S BRUSH

There are two main methods of coating the paper: by brush or by glass rod. Brush coating may appeal to those with more artistic

inclinations; use a wide soft bristle brush without a metal ferrule. A Japanese 'Hake' brush is ideal. The glass rod spreader (it is actually a tube) offers the advantages of evenness, economy and cleanness of working. They are best suited to coating papers having a smooth (Hot Pressed) surface. With their use, only 1.6cc, or less of sensitizer will suffice for a 10x8 coating depending on the type of paper, whereas brush coating would consume probably twice as much.

RAW CHEMISTRY

While Fotospeed make and sell alternative processes we also supply the raw chemicals for those who wish to make their own. Below is a list of raw chemicals that are supplied by Fotospeed.

- Acacia - Gum Arabic
- Alluminium Potassium Sulphate •Ammonia
- Ammonium Chloride •Ammonium di-Chromate
- Ammonium Ferric Citrate (green)
- Ammonium Iron (III) Oxalate
- Ammonium Iron (III) Sulphate
- Ammonium Metavanadate
- Ammonium Thiocyanate
- Arrowroot •Borax •Bromoil Ink Black
- Bromoil Ink Cyan •Bromoil Ink Magenta
- Bromoil Ink Yellow •Citric Acid
- Citric Acid Tripotassium Salt
- Citric Acid Trisodium Salt
- Copper Sulphate •Cupric Chloride •Gallic Acid
- Hydroquinone •Iron (II) Oxalate di-Hydrate
- Metol •Oxalic Acid •Palladium Chloride
- Potassium Bromide •Potassium Chlorate
- Potassium di-Chromate •Potassium Ferricyanide
- Potassium Ferrocyanide •Potassium Iodide
- Potassium Permanganate
- Potassium Chloroplatinate •Silver Nitrate
- Sodium Carbonate •Sodium Citrate
- Sodium Hydrosulfite •Sodium Hydroxide
- Sodium Metabisulphite
- Sodium Metaborate Hydrate •Sodium Sulphide
- Sodium Sulphite •Sodium Thiosulphate
- Sulphamic acid •Thiourea

LIQUID CHEMICALS

- Deionised Water
- Gold Chloride Solution 2% (1gm)
- Hydrochloric Acid GPR 28%
- Sulphuric Acid 10%
- Tween 20 ionic surfactant

TONERS AND DYES

The Fotospeed name is synonymous with toning. Palette toner is the latest addition to our extensive range and introduces a whole new dimension to the creative world of photographic toning. All our toning products are made from the highest grade of raw materials to ensure the very best and consistent results.

Palette Toner has pushed open the boundaries of metallic toning to allow an array of vibrant hues to be created from a single kit. Using traditional toning methods the four colours contained in the kit can be combined to produce a multitude of tones. Being a traditional toning system it is controllable and allows many copies of the same toned print to be made. Palette Toner is suitable for both Fibre and Resin Coated B&W papers.

DESCRIPTION

The kit comprises four toners : Titanium Yellow, Vanadium Yellow, Red and Blue. Each colour dilutes 1+9 with water and to it Activator must be added directly to the toner working solutions at the rate of 25ml/Ltr before the toner will tone. The Intensifier is only to be added to the Blue and Red elements for those who want the colour to really shout out. Additionally, not in the kit, you will need table salt and Hypo (sodium thiosulphate) crystals for clearing and refixing.

Within each colour there are many hues obtainable. The variety is immense simply by adjusting time and combinations. Like the three primary colours (Yellow, Magenta and Cyan)

placing the print to be toned into each solution for varying times creates a colour mix in the final image. Washing between solutions is essential. The working solutions can be rebottled for further use except for the blue. The blue working solution will not keep.

All the elements are available separately so that when you run out of an element you do not have to purchase a whole kit.

Full detailed instructions are only contained in the kit..

The keeping properties of the working solutions is good and of the concentrates, 2 - 3 years.

Palette

Palette Toner

Concentrate

Code	Prod.	Makes
FS06910	Kit	2.5ltrs
FS06911	Red	2.5ltrs
FS06912	Blue	2.5ltrs
FS06913	T/Yellow	2.5ltrs
FS06914	V/Yellow	2.5ltrs
FS06915	Activator	2.5ltrs
FS06916	Intens.	2.5ltrs

Fotospeed ST20 Odourless Vario Sepia Toner can produce a wide range of sepia tones on Fibre and Resin Coated B&W papers. It comprises three parts : Part 1 - Bleach ; Part 2 - Toner ; Part 3 - Toner Additive. Parts 1 and 2 mix separately to make two working solutions with Part 3 being added in it's concentrated form to Part 2 working solution to adjust the shade of sepia required. Part 3 is needed to activate the toner.

MIXING INSTRUCTIONS

Part 1 : Bleach - Dilute 1+9 with water to make the volume of working strength solution required. Should you wish the bleaching time to be faster or slower make up the solution stronger for faster bleaching and more dilute for slower bleaching.

Part 2 : Toner - Dilute 1+9 with water to make the volume of working strength solution required.

Part 3 : Toner Additive - This should be added, without dilution, directly to part 2 working solution in the quantity

COLOUR	PART3 (ml) / WORKING PT 2 (ltr)
YELLOW/BROWN	5
SEPIA	15
MID BROWN	30
BROWN	75
DARK BROWN	100

required to produce the shade of sepia required. The table gives a GUIDE to requirements. The additive can also be used to replenish the toning solution to hold the desired hue of sepia.

USAGE

Having selected your print to be toned ensure that it has been fully fixed and washed. In the case of dry prints first soak them in water to ensure that the emulsion is fully wet. This takes about one minute.

1. Place the print in the bleach bath and agitate gently. Bleaching times may vary according to paper type. Complete bleaching of a print, to the point where there is no 'black'

image apparent, can take up to 2 minutes. Prints may be removed from the bleach at any time without waiting for full bleaching to take place. The toner will only tone silver that has been bleached, any remaining silver from partial bleaching will stay as silver black and can add character to the final sepia toned print. After bleaching rinse the print well in running water for 2 minutes for RC and 5 minutes for FB to remove all traces of the bleach.

2. Place the bleached print into the tray of Sepia Toner with the required amount of additive and agitate well for about one minute to fully tone the print.

3. Remove the print and wash for 3 mins for RC and 15 mins for FB and dry in the normal manner. Both the Bleach and Sepia Toner working solutions can be kept for reuse in airtight containers.

CAPACITY

Each litre of working solution should process 30 - 8x10in prints, depending on paper and image.

PRINT QUALITY

If there is doubt that the print to be toned has been fixed and washed thoroughly, it should be refixed and washed fully before toning. Staining on the toned print can result from the print having been inadequately fixed and washed beforehand. Variable Contrast papers may require the bleaching time to be extended over those published. Alternatively, the bleach can be diluted 1+7 (or stronger) with water to reduce the time required in this solution for variable contrast papers. A properly sepia toned print will be archival permanent.

The whole procedure should be done under normal room or daylight conditions.

ST20

Odourless Vario Sepia Toner

Concentrate

Code	Size	Makes
FS06110	150 mls	1.5ltrs
FS06130	500 mls	5ltrs
FS06150	5 Ltrs	50ltrs

Separate Parts: The last digit identifies the part.

FS06131	500mls	5ltrs
FS06151	5ltrs	50ltrs
FS06132	500mls	5ltrs
FS06152	5ltrs	50ltrs
FS06133	500mls	5ltrs
FS06153	5ltrs	50ltrs

TONERS AND DYES

ST10

NON Vario
Odourless
Sepia Toner

Concentrate

Code	Size	Makes
FS06610	100 mls	1ltr

Fotospeed ST10 NON Vario Sepia Toner is an odourless toner which will produce a fixed sepia tone on both Fibre and Resin Coated B&W papers. It comprises two parts: Part 1 - Bleach & Part 2 - Toner. Each part mixes separately to make two working solutions. This toner will give a traditional sepia colour with no control over the colour.

MIXING INSTRUCTIONS

Part 1: Bleach - Dilute 1+9 with water to make the volume of working solution required.

Part 2: Toner - Dilute 1+9 with water to make the volume of working solution required.

USAGE

Having selected the print to be toned ensure that it has been fully fixed and washed. In the case of dry prints, first soak them in water for 1 minute to ensure even take up of bleach.

1. Place the print in the bleach bath and agitate gently. Bleaching times may vary according to paper type.
2. After bleaching, place the print into running water for 1 minute for RC paper and 5 minutes for fibre paper.
3. Place the print into the toner bath, agitate gently and observe the image reconstructing. Full toning will be completed in 1 minute with fresh solution.
4. Finally wash the print in running water. Wash RC papers for 2 minutes and fibre papers for 10 minutes.

CAPACITY

Both the Bleach and Toner working solutions can be kept for

reuse in airtight containers. Both solutions will however deteriorate once used and a slow-down in activity should be anticipated together with a colour shift in the toner on subsequent prints. To maintain consistency of sepia tone, it is advisable to make up only small quantities (approx. 200mls) of working solution at a time. After putting 5-8x10 prints through 200mls of solution, it will become exhausted. Each litre should process 25-8x10 prints assuming average density.

PRINT QUALITY

If there is any doubt that the print to be toned has been fully fixed and washed, it should be refixed and rewashed thoroughly before beginning toning. Staining on a toned print can result from the print having been inadequately fixed and washed beforehand.

Variable contrast papers may be slow to react with the bleach. If this occurs extend the bleaching time or make the bleach more concentrated.

The whole procedure should be done under normal room or daylight conditions.

COTTS

Finger 'Condoms'

Code	Pack
FS07820	100

It is advisable when using chemicals to wear some protection for your fingers. Gloves are sometimes inconvenient and cumbersome. So, welcome to something that covers only the of fingers, Finger Cotts, fantastic protection for fingers and very easy to put on and take off.

AD10

Antique Dye

Concentrate

Code	Size	Makes
FS07220	100 mls	3ltrs

Antique Dye AD10 gives a sepia toned print that ancient mature look. Modern papers have white highlights. Old prints have 'nicotine' stained highlights. Antique dye enables you to recreate the old look of the prints of yester-year. A single solution, that is very simple to use but very effective.

USAGE

While the process is most effective with sepia tones prints, it can be used with straight black and white prints. Ensure that the print has been fully washed prior to Antique Dyeing since the print should NOT to be wash after, but simply wiped with tissue and allowed to dry naturally.

Dilute the AD10 from 1+9 to 1+29 according to personal

taste and place the print into the solution. Observe the slow change and remove when the effect required has been achieved.

Do not wash or rinse. Only wipe the surface dye off the print and allow to dry naturally. Rebottle solution for reuse.

RT20

Copper/Red
Toner

Concentrate

Code	Size	Makes
FS06410	150 mls	1.5ltrs
FS06430	500 mls	5ltrs

Fotospeed RT20 Copper/Red Toner is a liquid toner which is supplied in a two part concentrate that makes a single working solution. It is specifically designed for the toning of Fibre and Resin Coated B&W papers. The shade of the Copper/Red tone is adjusted by the length of time the print is allowed to stay in the working solution. The longer it remains in the solution the more toned it becomes.

MIXING INSTRUCTIONS & USAGE

Part 1: Dilute 1+4 with water to make half the volume of working solution required.

Part 2: Dilute 1+4 with water to make half the volume of working solution required.

Pour the two diluted solutions into the same processing dish and ensure that they are well mixed together. The toner is now ready to use.

Prints for Copper/Red toning should ideally be up to 15% denser than normal to compensate for the slight reducing effect of this toner.

Having selected the print to be toned ensure that it has been fully fixed and washed. In the case of dry prints first soak them in water to ensure that the emulsion is fully wet. This takes about one minute. Now put the print into the dish of toner working solution

and agitate it gently. The toning time takes anything from 1 minute to a maximum of 10 minutes when no further toning will take place.

You will have to decide the shade of tone you require by observing the change in colour and removing your print from the solution when ready.

Now fully wash the print for 5 minutes for resin coated papers and for 15 minutes for fibre based papers. Dry in the normal manner. Wipe the surface of the print with paper towel while it is in the wash to remove the scum deposited during the toning process.

The whole procedure should be done under normal room or daylight conditions.

STORAGE

Working solutions do not keep. Concentrates keep for at least one year in sealed bottles.

TONERS AND DYES

MIXING INSTRUCTIONS

The kit consists of 3 parts and the table below shows the mixing sequence with water. Equal amounts of each part.

The whole procedure should be done under normal room or daylight conditions.

TONING BLACK AND WHITE PAPERS

Ensure that the print has been well fixed and very well washed before toning.

Mix up the required amount of working solution according to the table and pour into a processing tray. Place the print in the toning solution and agitate gently until the depth of tone is visually reached. Remove and wash well for 3 minutes or until the yellow stain has come out of the whites. A salt bath can be used to speed the removal of the yellow 'stain' from the highlights but wash well after. Dry the print naturally.

TONING FILM

Where possible ensure that the film to be toned is of optimum density and has been properly fixed and washed. Before toning dry films, soak them for about 2 minutes in water.

Toning takes between 2-10 minutes depending on the density of the film image.

For lengths of film such as 135/36 Exp. or 120/12Exp place the film before wetting into a tank spiral as for normal processing. In the case of pieces of film and sheet film then tray process.

Fill the spiral tank with the required volume of toner to submerge the spiral and agitate the spiral in the open tank continuously in both directions. Examine intermittently. A light blue 'fog' may appear during toning but this will disappear during the washing sequence.

Now wash the film for 5 minutes under running water and

preferably use a rinse aid such as Fotospeed RA50 Rinse Aid in the final 30 seconds to ensure perfect uniform drying without streaking. Do not over wash the film since the dye will gradually wash out if the film is over washed.

INTENSIFYING (DARKENING) THE BLUE TONE

After toning and washing, the print can then be placed into B&W print developer diluted 1+9 for 2 minutes. The blue tone will completely disappear. Then wash for 1 minute and retone following the same procedure. The result will be an intensified blue tone. This procedure can be repeated several times to continue the intensification process. Prints for Blue Toning can be made lighter to compensate for the addition of density during the toning process.

INTENSIFYING (BRIGHTENING) THE BLUE TONE

Place the toned print into normal fixer diluted at 1+4 for one minute. This will remove the blue tone leaving a 'ghost' blue in the highlights. Then place the print into running water for 1 minute. If you like the image then dry to keep. Otherwise now place the print back into the blue toner and retone. The blue comes back brighter. The fixing process can be repeated and the print reblue toned for an even brighter result. Finally wash and dry.

CAPACITY

One litre of working solution will tone 6-135/36 Exp black & white films or the equivalent of 20 sheets 20x25cm black and white paper. Once the toner darkens discard and replace.

STORAGE

The working solution will not keep. Concentrates of the three parts will keep for up to two years in full tightly capped bottles and for about three months in half full capped bot-

WORKING SOLUTION (ML)	WATER (ML)	PART1 (ML)	PART2 (ML)	PART3 (ML)
4000	2500	500	500	500
3200	2000	400	400	400
2400	1500	300	300	300
2000	1250	250	250	250
1200	750	150	150	150
1000	625	125	125	125
600	375	75	75	75
200	125	25	25	25

Fotospeed SLT20 Selenium Toner is a liquid toner which is supplied in a single part concentrate. It is specifically designed for the toning of Fibre and Resin Coated B&W papers to produce a wide range of subtle warm purple black tones or at higher dilutions for Archival Permanence techniques. The shade of the tone is adjusted by dilution and the length of time the print is allowed to stay in the working solution. The longer it remains in the solution the more toned it becomes. Resin coated papers can be slow to react with selenium, particularly the variable contrast papers. Papers with chlorobromide emulsions are the exception and will produce very effective results.

MIXING INSTRUCTIONS

Dilute from 1+3 to 1+12 with water to make the volume of working solution required depending on the speed and depth of tone required and the type of paper to be toned.

The whole procedure can be done under normal room or daylight conditions.

Having selected the print to be toned ensure that it has been fully fixed and washed. In the case of dry prints first soak them in water to ensure that the emulsion is fully wet. This takes about one minute.

Now put the print into the dish of toner working solution and agitate it gently. The toning time takes anything from 1 minute to 15 minutes depending on the shade of tone required.

Now fully wash the print for 5 minutes for resin coated papers and for 15 minutes for fibre based papers. Dry in the

normal manner.

Resin coated papers can be slow to react with selenium toner. With this type of paper mix the working solution at the lower dilution (1+3) and use a temperature of 25°C if necessary to assist the process.

ARCHIVAL PERMANENCE TECHNIQUE

Dilute 1+39 with water to make the volume of working solution required. Follow the instructions as above for toning in mixing instructions. Archival Permanence can be achieved with no appreciable change to the original tone of the print.

STORAGE

The working solution will keep for 2 months in a bottle and for at least a week in the open dish. Concentrates will keep for at least one year in the original bottle.

BT20

Blue Toner

Concentrate

Code	Size	Makes
FS06210	150 mls	1.2ltrs
FS06230	500 mls	4ltrs

SLT20

Selenium Toner

Concentrate

Code	Size	Makes
FS06310	250 mls	2.5ltrs
FS06320	500 mls	5ltrs
FS06330	1 Ltr	10ltrs

TONERS AND DYES

GT20

Green Toner

Concentrate

Code	Size	Makes
FS06510	150 mls	750mls
FS06520	500 mls	1.25ltrs

Fotospeed GT20 Green Toner is a liquid toner for the toning of Fibre and Resin Coated B&W papers. It comprises three parts: Part 1 - Bleach; Part 2 - Toner; Part 3 -Toner Additive. Part 3, when added to Part 2 working solution increases the shade of green. Also the length of time in the Part 1 Bleach affects the amount of black silver remaining prior to toning.

MIXING INSTRUCTIONS

Part 1: Dilute 1+4 to make the volume of solution required.

Part 2: Dilute 1+4 to make the volume of solution required.

Part 3: This should be added without dilution to Part 2 working solution in the quantity required to produce the shade of green tone required. The table to the right gives a GUIDE.

Prints for Green toning should be up to 20% denser than normal to compensate for the reducing effect of this toner.

Having selected your print to be toned ensure that it has been fully fixed and washed. In the case of dry prints first soak them in water to ensure that the emulsion is fully wet. This takes about one minute.

Now put the print into the dish of bleach working solution and agitate it gently. You can bleach for 1 to 5 minutes depending on how much black silver image you wish to remove. Remember, the more you remove the less contrast your print will have. Now remove the print and wash in water for 3 minutes

and then place it in the toner. Leave in the toner for 5-10 minutes. When toning is complete wash as normal and dry. Sometimes the base white of the print turns to an ivory in the wash after toning. This can be cured by placing the print into a 10% solution of citric acid for 2 minutes and washing after.

COLOUR	ML OF PT3 / LTR. WORKING PT2
YELLOWISH	0
GREEN/YELLOW	25
LIGHT GREEN	50
MID GREEN	75
GREEN	100

STORAGE

Working solutions will keep for 4 weeks after mixing. Concentrates will keep for up to one year in full tightly capped bottles and for about three months in half full capped bottles.

The whole procedure can be done under normal room or daylight conditions.

AU20

Gold Toner

Ready to use

Code	Size
FS06710	1 Ltr

Fotospeed AU20 Gold Toner is a single working solution and should NOT be further diluted. On RC prints Gold Toner shows little or no steel blue hue. Fibre prints will exhibit this cold blue hue. RC prints first require sepia toning, washing and then gold toning to replace the sepia with a reddish/peachy tone - also works on fibre.

MIXING INSTRUCTIONS

The solution is supplied as a working solution and should be used directly from the bottle. Used on prints (RC or FB) that have been sepia toned, washed, then placed into the Gold Toner, a rich red/peachy tone will slowly produce in the high-lights and midtones. The longer the print is left in the toner the redder the tone will become.

On B&W fibre papers, a previously untoned print left in the solution for 20 minutes will take on a distinctive steely blue

tone. Used on an untoned B&W RC print it will make the print archivally permanent but with little or no change in tone.

The toner should be returned to the bottle for storage after each session. It can be used until it no longer tones which is approx. 60 - 8x10's.

STORAGE

Fotospeed AU20 in a full, tightly capped bottle will keep for several years.

DY15

Fotodyes

Concentrate

Code	Size
FS07210	12x15ml

Fotospeed DY15 Fotodyes are designed to be used on any photographic emulsion. As true dyes, they are completely absorbed by the emulsion leaving no surface marking.

The dyes come in 11 different colours with one reducer. All the dyes can be fully intermixed and /or diluted to produce any colour or shade required. The dyes are extremely concentrated and caution should initially be exercised when diluting for use. It is very rare to use the dye undiluted except to colour 35mm title slides.

When using for the first time, we suggest you test the strength of colour on scrap prints. As a first test use 3 drops of dye to 1 teaspoon of water. You can then see the effect of stronger colour by adding more drops of dye.

APPLICATION

To obtain the best results prepare the surface by wiping over with a 2% solution of wetting agent such as Fotospeed RA50 but removing surface moisture before applying the dyes. While this step is not essential it will assist in even dye take-up particularly on large areas.

Although these dyes are water soluble, it is difficult to remove them with water since they are absorbed by the emulsion. The dye can be completely removed by using the Reducing Agent in the kit undiluted with a cotton bud. After removing the dye remove the surplus reducer with damp cotton wool before drying the print.

COLOUR PRINTS

To add strength to weak areas use a dilute solution of the required colour. Use a cotton wool swab for large areas but remove surplus dye with slightly damp cotton wool to prevent uneven run down. These dyes are ideal for retouching colour

prints as no surface mark will be left by the dye.

BLACK AND WHITE PRINTS

The techniques described for colour prints can be used to hand colour B&W prints. Where toning has been used the Fotodyes can add selective subtle colour to small areas of the print. For retouching untoned black and white prints the Fotospeed DY10 B&W Retouch Kit is more suitable.

COLOUR TRANSPARENCIES

Off colour transparencies will be greatly improved by immersion in a dye bath complimentary colour, but do remove surplus dye before drying.

BLEMISHES

Both prints and transparencies can be spotted-in by stippling with an almost dry brush, be careful not to use too strong a dye.

TONERS AND DYES

GENERAL HINTS

Greatest dye take-up will occur when the print or film is not pre-wetted. Nothing will be gained by prolonged immersion, as once the emulsion is thoroughly wetted, it cannot take up more dye. If the colour is not strong enough, repeat the process after drying, maybe with a stronger dye bath. Be sure to dab off surplus dye before drying.

PREMASKING

When dyeing large areas it is better to protect the parts of the image you do not wish to dye. This can best be done by first painting those areas with Fotomask which is a quick drying liquid plastic that easily peels off after dyeing. Fotomask is very useful for dyeing title slides when, by masking and dyeing in sequence, a limitless range of colours can be produced on one slide, but do remember the dye will also be absorbed by the back of the film.

RINSING AND DRYING

If large areas have been dyed whilst others have been kept dry with Fotomask remove the Fotomask before drying and wet the complete print or film to avoid cockling during drying. This step is not necessary if only small areas have been dyed or spotted.

OTHER USES FOR FOTODYES

Undiluted, these dyes are ideal drawing inks of greater purity and brilliance than waterproof inks. Containing no fluorescence, they photograph true to colour. Diluted and applied by airbrush they are used to produce coloured showcards, exhibition signs, etc.

The dyes are in a highly concentrated form, however where greater saturation is required, add 0.5% of Acetic Acid to the dye which will increase saturation by up to 50%.

Do not dilute the black dye. All other colours can be diluted to form pastel colours. All colours can be intermixed to produce a limitless range of colours. Here are a few examples:

50% Yellow + 50% Crimson	=Orange
15% Yellow + 85% Crimson	=Vermillion
25% Yellow + 75% Cyan	=Leaf Green
7% Yellow +93% Cyan	=Deep Green
40% Yellow +10% Cyan + 50% Water	=Yellow Green
30% Yellow + 30% Cyan +40% Crimson	=Brown
52% Yellow + 20% Cyan +28% Crimson	=Burnt Sienna
32% Yellow + 14% Cyan +54% Crimson	=Flesh

Fotospeed DY10 B&W Retouch Kit is suitable for use on all black and white prints. The kit can be used to add density by using the dyes, or to remove density with the silver image bleach. The silver image bleach can be used to remove either small black spots or large areas that are not required in the finished print.

The kit contains silver image bleach, black dye, grey dye and burnt sienna dye. The dyes leave no surface marking.

DY10 B/W Retouch Kit

Concentrate

Code	Size
FS07710	5x15mls

APPLICATION

For protecting areas of a print from toning or dyeing. Being bright red it is easy to see where it is being applied. The red pigment will not stain or discolour photographic emulsion. By brush, using bold strokes flowing it towards the required outline. Fotomask has good surface tension and resistance properties, therefore only the thinnest coat is needed. Avoid over brushing, which due to the rapid drying characteristics will cause lifting and sticking. If this should occur or the brush becomes sticky, simply dip the brush in Fotomask Brush Cleaner until pliable and continue.

REMOVAL

To remove Fotomask simply attach a piece of adhesive tape or

similar to the edge of the Fotomask and peel off in one sheet. If you have toned the print always ensure that you re-soak the area under the mask before drying the print to avoid cockling.

OTHER USES

Fotomask has been found useful to cocoon printed blocks, also to protect precision metal surfaces from the effects of pollution and oxidation. It is also used to protect optical surfaces and as a printed circuit etch resist. Its instant removal without solvents is a great advantage over traditional greases and waxes. **Fotomask must not be used in an airbrush. Do not use the Brush Cleaner to dilute Fotomask as this will prevent it stripping. CAUTION - Fotomask will bond permanently to some plastics.**

MK50 Fotomask

Ready to use

Code	Size
FS07310	125mls

During the application of Fotomask, brushes will become sticky and they should therefore be occasionally cleaned in this solution to keep them pliable. After using brushes to apply Fotomask they should be cleaned in this solution by inserting the brush into the can of brush cleaner.

Do not decant the cleaner but rinse the brush in the can remembering to replace the cap immediately after use.

Do not use the Brush Cleaner to dilute Fotomask as this will prevent it stripping.

CAUTION - Both these products are highly flammable and must not be used near naked flames or in confined spaces. Replace caps when not in use.

MKS50 Fotomask Brush Cleaner

Ready to use

Code	Size
FS07410	125mls

TONING HINTS

TIPS AND HINTS TO TONING

INTRODUCTION

Fotospeed toners have been specifically designed for the toning of black and white silver based emulsions. This applies to both film and paper. The toning process involves the conversion of the black silver within the print to another metallic compound. When correctly toned, the image will be chemically stable. Toners such as Selenium and Gold are ideal for archival permanence techniques.

Toning techniques are carried out after the print has been fully fixed and washed and are therefore performed under normal daylight conditions. If, as in the case of an old print, you have any doubts as to whether it has been fully fixed and fully washed, then refix and rewash before proceeding. Toning is very much in the creative domain of the user. When toning it is important to observe the shift of colour in the print. Times given in the instructions should therefore be used as a guide only.

Fotospeed toners are available as liquids and fall into two categories. Two bath working solutions i.e. ST20 Vario Sepia Toner, ST10 Non vario Sepia Toner and GT20 Green Toner, and single working solution toners i.e. PALETTE Toner, BT20 Blue Toner, RT20 Copper/Red Toner, SLT20 Selenium Toner and AU20 Gold Toner. In the case of the two bath toners the print is bleached first and after a short rinse, toned in the second bath. The print can be bleached for as little or as long as the user requires. Full bleaching of the print, i.e., when the whole image has virtually disappeared, will allow the pure colour of the toner to be reproduced in full. Partial bleaching of the print will leave black silver in the image and therefore give the final tone a darker colour due to the underlying silver still in the print. In the case of single working solution toners the bleaching and toning processes are simultaneous. To arrest the toning process the print is removed from the toner and washed. As with all these techniques it is the user's personal preference which is paramount. After any toning process only good washing is required, there is no requirement for fixation.

CHOICE OF PAPER

Fotospeed toners are suitable for all silver based emulsions. There are many types and makes of photographic paper available and all are suitable for toning provided there is silver in the print. (It should be noted that some Black and White Prints produced commercially in colour laboratories will have used a special B&W paper that goes through the RA4 colour process. These prints will be silverless after processing and therefore will not be able to be toned. Watch out!) Each paper will have its own inherent characteristics according to how they have been manufactured. As a result each paper will produce a slightly different shade, depth and quality of tone.

Resin coated variable contrast papers are the most popular and readily available. The plastic coating makes them easy to handle and they will require minimal (2 minutes) washing times. The lightweight emulsion coating and plastic coating

means that they may require longer toning times and will produce less tonal vibrance than fibre based papers.

Fibre based papers absorb toners well and produce rich hues. They require less toning time but infinitely more washing and more careful handling than resin papers.

Graded papers will vary according to the grade. The higher the grade the stronger the tone.

Variable Contrast Papers have a complex structure of emulsions for the toner to penetrate and will require greater toning times.

The higher the silver content within the paper the better the quality of the toned image.

Which ever paper is used, it is important that all prints are well fixed and washed before toning. Handle prints carefully as any mark or blemish in the print will be exaggerated in the toning process. This is particularly important when using blue toner.

IMAGE DENSITY

Sepia Toner ST20 and ST10 Sepia Toner should return the image to the density of the original print. Therefore no additional print density is required. Where very fine detail in the highlights does not return it is most likely due to the solution being too cold.

Blue Toner BT20, particularly when used to obtain a dark blue, can add density to the image. If a final toned image of "normal" density is required, the image of the original print for toning should be sufficiently lighter to compensate for the gain in density during the toning process.

Conversely, the Green Toner GT20 and the Copper/Red Toner RT20 have a reducing effect on the image density during toning. The image prior to toning should be sufficiently darker to compensate.

Selenium Toner SLT20, being a true selenium toner, will add contrast to the image. The final effect will show a crisping of the black areas and an increase in contrast of approximately half a grade.

Gold Toner AU20 should be treated as per Sepia Toner.

SPLIT TONING

Options for toning are not limited to just the use of one toner per print. Split toning is a technique whereby toners of different colours are used sequentially to allow more than one colour to react with the image and create a blend of colour. The technique requires the reduction of time in the first toner (in the case of sepia then a reduction of time in the bleach), leaving sufficient untoned silver for a reaction with the subsequent toner. Choose a subject with good tonal range. Split toning is not an exact science. Results can be a little unpredictable but as a general rule, the highlights will take the colour of the first toner, the shadows the colour of the last toner and the

mid tones in the area of the "cross over" a mixture of each. Extending the time in the first toner will push the "cross over" further towards the shadows with more of the first tone appearing in the highlights and mid range and visa versa. Always wash the print well when transferring from one solution to the next.

SPLIT TONING SUGGESTIONS

Follow the instructions for using the toners but reduce the time in the first solutions to 25% of that required for a "normal" toned print. Wash the print well prior to immersing in the second toner. Leave in the second toner until the required effect is seen then remove and wash.

Sepia then blue produces sepia highlights with blue shadows and green mid range.

Copper then blue produces mauve, mauve blues and blues.

Sepia then Selenium produces brown purples.

Selenium then Gold produces purpley blue mid tones.

Blue then Selenium produces blue shadows and buff highlights

GENERAL HINTS

Make up sufficient solution to allow the print to be fully immersed in the toning solutions. If there is insufficient solution toning will be uneven. Continuous agitation will keep the solutions moving across the surface of the print and prevent localised exhaustion of the toner. Once toner concentrates have been mixed they will begin to oxidise in the open dish. The greater surface area exposed to the air the more rapid the oxidation will be. Concentrates will keep in tightly capped bottles so it is better to make up smaller quantities of working solutions as required.

Contamination of solutions can cause disappointing results. Always take meticulous care when toning and ensure that all equipment is clean before use. Chemical residues in dishes can contaminate solutions and produce inconsistent results. Rinse prints in a water bath when moving from one solution to the next unless otherwise stated as this will help to prevent cross contamination and improve the life of the toner. Follow the mixing instructions carefully.

Always follow the health and safety guide lines with each kit. Wear impervious gloves and/or use tongs when handling prints in the solutions. Work in a well ventilated room.

Fotospeed PALETTE TONER is a new multi toner kit with three colours - Yellow, Blue & Red enabling a range of colours and hues to be achieved through the splitting process. Each colour is a single solution with an activator liquid being added to the toner to start toning. Palette toner offers a huge range of colours that are totally different to the traditional toners shown here.

Fotospeed ST20 SEPIA TONER is an odourless variable toner that will produce a wide

range of sepia tones. ST20 is a two bath sepia toner supplied as a three part concentrate. Part 1 is the bleach which dilutes with water to form a working solution. Part 2 is the toner which dilutes with water to make the toner working solution. Part 3 is the additive which gives the toner solution the shade of sepia. This concentrate is added directly into the toner working solution. The quantity of part 3 added to the toner solution will vary the sepia colour from yellow sepia through to dark chocolate sepia. If too much part 3 is added to the part 2 working solution the sepia hue will be so dark brown that the print will have the appearance of a black and white print. For full information on this toner see the relevant section of this booklet.

BLEACHING

ST20 bleaching solution will slowly remove the image from the print. The solution will begin bleaching the highlight areas first and then move into the shadow areas until the image has been almost, though not completely removed. Where the image has been bleached the toner will redevelop the image in the chosen shade of sepia. Bleaching can be stopped at any time by removing the print and rinsing in water. The amount of bleaching the image receives will alter the final effect of the toned print. The more the image is bleached the purer the hue of sepia will be. The less time the print is bleached the more black silver will remain in the image and therefore the sepia will have a more black hue. Fotospeed bleaching solution has been designed to act slowly so that the bleaching times can be carefully controlled. If you require more rapid bleaching, add less water when diluting.

TONING

The part 2 toning solution once diluted to working strength will need to be activated by a small amount of the additive. To achieve a yellow sepia only small quantities of part 3 should be added. The more part 3 added the darker the sepia shade.

Fotospeed BT20 BLUE TONER is an odourless single bath toner which is supplied in three concentrates. These concentrates are mixed with water and then combined in the dish to make a single working solution. A variety of blue tones can be achieved by varying the suggested dilutions of the concentrate and by varying the length of time the print is left in the solution. Full toning will occur after about 10 minutes depending on the density of the print. Once full toning has taken place remove the print from the solution and rinse in water.

A blue toned print can be further enhanced by intensifying or reducing the blue tone using working solutions of Fotospeed PD5 Print Developer and Fotospeed FX20 Fixer. Instructions for these techniques are given in the relevant section.

Blue toned prints will have an overall yellow stain on removal from the toner which is particularly apparent in the white areas of the print. This stain will disappear with washing. Any stubborn stains related to blue toning that do not wash out in the running water can be removed by either passing the print quickly through a weak salt solution (approximately 1 tablespoon diluted in a litre of water) or wiping a swab of cotton

wool soaked in print developer across the effected areas. Always rinse the print thoroughly and allow to dry naturally.

If any residual scum remains on the print after washing, this can be removed by rubbing the print with a piece of cotton wool containing 80% solution of acetic acid. Give the print a quick rinse and allow to dry naturally. Good washing cannot be overstressed with blue toner. Ideally tone past the point you want to be and wash the print back. Prolonged washing will regenerate the blue tone to black and white which can be very effective for getting a really clean, crisp blue tone.

Fotospeed RT20 COPPER/RED TONER is an odourless single bath toner which is supplied in two concentrates. The concentrates are diluted with water and combined in the dish to make a single working solution. The shade and depth of copper/red tone can be varied by the altering the suggested dilutions of the concentrates and by the length of time the print is left in the working solution. Full toning will take approximately 10 minutes. Once toning has been completed the bleach elements in the solution will continue to attack the image but no further change of colour will take place and the image will gradually reduce in density.

The copper /red toned print can be further enhanced by intensifying or reducing the colour using working solutions of Fotospeed PD5 Print Developer and Fotospeed FX20 Fixer. If a copper/red toned print is placed after washing into sepia toner (no need to bleach first) a reddish sepia tone will result.

A Copper toned print once toned and washed can be placed in a working solution of Fotospeed PD5 Print Developer as redevelopment occurs remove the print and wash briefly then place into the copper toner solution. This procedure can be repeated several times. With each process the image will become more solarised and the original shadow areas will take on a metallic look.

Fotospeed ST20 SEPIA TONER BLEACH can also add a further dimension to a copper toned print. A copper toned print after being washed can be passed through ST20 sepia bleach for 30 seconds or so and then washed. This process will shift the copper red tone to a brighter red and generally brighten the print. It is important to realise that when copper toning, a deposit is left on the surface of the print and prints should be rubbed with a wad of cotton wool when they first go into the wash to remove this deposit.

Using the same method but instead of ST20 Sepia bleach a working solution of Fotospeed FX20 Fixer, will give the shadow areas a blue cast and move the copper tones to a pinky hue.

When manipulating an image with these solutions, always wash the print between each bath.

Copper Red toner will exhaust quickly, so it is advisable to make up small quantities of working solution and replace with freshly mixed concentrates as needed.

Fotospeed SLT20 SELENIUM Toner is a single concentrate diluted to make a single working solution. Selenium toner smells strongly of ammonia and should therefore be used in a very well ventilated area. Once the smell of ammonia can no longer be detected then the Selenium has become exhausted. The warm purple hue associ-

ated with selenium will depend on concentration and the type of paper being used. With some of the RCVC papers, the selenium effect can sometimes be so subtle that only when compared to the original print can a shift in colour be noticed, however the increased contrast and crisping of the black areas, and the archival permanence effect will take place.

The type and brand of paper used when producing selenium toned prints is more crucial than with any other toner. The depth of colour can be very slight in some cases. Resin papers are the most stubborn to react to selenium and will give the most subtle of changes.

Split toning techniques often use Selenium toner as the subtle tone mixes well with the stronger tones of Copper/Red, Blue and Sepia.

When used for archival permanence techniques Selenium toner should be diluted at 1+39 with water. The print should be left in the solution for approximately 10 minutes and there will be no appreciable shift in colour.

Fotospeed AU20 GOLD TONER is so called because of the presence of gold chloride in the solution. Gold toner will create peachy red tones on prints which have already been sepia toned, or steely blue shades on fibre prints that have not been toned. Gold toner will not produce gold coloured prints. To create the peach tones, sepia tone the print in the normal way, making sure fully wash the print at the end of the process. Then place into gold toner. Starting with the highlight areas the image will slowly turn a rich peachy red.

Untoned B&W fibre prints placed into the gold toner will take on a cold steely blue the black areas.

Gold toner also used for archival permanence techniques. It is supplied as a working solution. It should not be diluted. Gold toner should be rebottled and used again. It is most important that prints placed into Gold Toner have been very well washed prior to immersion since contamination will reduce its longevity.

Fotospeed AD10 ANTIQUE DYE is used after sepia toning to give prints that old fashioned nicotine stain in the borders. It can be diluted to alter the shade of yellow required. Once the print has been passed through the solution it should not be washed but wiped and allowed to dry.

MASKING AND TONING

Fotospeed MK50 Fotomask is a bright red liquid plastic which is used to protect the applied areas from subsequent dyeing, toning, beaching, etc. It has been designed specially for photographic emulsions and so will not leave any surface mark on the print. It is easy to use and once applied dries quickly to form and impervious seal. To remove Fotomask simply lift the edge with a small piece of adhesive tape and it will peel away.

Fotomask can be applied to areas of a print so that two or more toners can be used to give an image a duo tone effect.

Fotospeed DY15 Fotodyes

Hand tinting with fotodyes can add just a hint of colour to an image. Fotospeed fotodyes are supplied in a kit of 11 colours and one reducer. Also the dyes will not leave any surface mark on the print, even on glossy paper.

SUNDRIES

LE30 Liquid Emulsion

Concentrate

Code	Size
FS07110	30mls
FS07120	250mls
FS07130	500mls
FS07140	1 Ltr

Fotospeed LE30 Liquid Emulsion is a Black & White photographic emulsion grade 2 supplied in a form that allows the user to apply it to any surface if the following instructions are adhered to. At all times it should be remembered that you are dealing with a light sensitive product and therefore the precautions for a normal B&W paper should be followed.

PREPARATION FOR USE

Heat container in a water bath to a maximum temperature of 50°C. Leave the lid on to prevent water entering the tub or bottle. The emulsion should turn to a creamy liquid in approximately 5 minutes.

Pour emulsion required into a beaker and add water at approx 40°C to the emulsion at the mixture of 1 part emulsion to 1 part water. Gently agitate the beaker to cause the water and emulsion to mix. Continue heating the beaker until a uniform mixture is obtained. At this point the emulsion is ready for application. For richer images the emulsion can be used neat.

APPLYING THE EMULSION

You may work under RED safelight but keep the safelight at least 3feet away from where you are coating.

Ensure that the surface to which the emulsion is being applied is clean and free from grease.

For surfaces such as glass, ceramics, stone etc. a subbing layer is recommended to assist the emulsion to adhere to the surface. This is achieved either by using a varnish called Griffin (available at most art shops). Paint the Griffin varnish onto the surface and allow to fully dry. This now forms a key to which the emulsion can attached itself.

Pour the emulsion onto the surface to be coated and either brush it across the surface or if the surface is perfectly flat a rubber or plastic roller can be used. Remember that ideally the temperature of the emulsion should be maintained otherwise as the emulsion cools on contact with a cold surface then you will end up with a thicker emulsion layer.

Once coated either place the coated surface in a refrigerator (ensure that the fridge light has been disconnected before opening the fridge!) for about 5 minutes to allow the emulsion to harden. Alternatively a hairdryer set to cool can also successfully dry the emulsion.

EXPOSURE

Place the coated surface under the enlarger and cover it with either light proof black paper or light proof black plastic. Place a piece of white paper as a focusing sheet directly on the light proof material and turn on the enlarger and make the necessary focusing alterations and stop down. Turn off the

enlarger.

Remove the focusing sheet and light proof material and make your exposure. Alternatively for enlargers with a safety glass that swings in under the lens the requirement for the black light proof material and focusing sheet is not necessary.

PROCESSING

The same processing sequence as for normal B&W processing is used, i.e. Fotospeed PD5 Print Developer and Fotospeed FX20 Rapid Fixer. We also advise the use of a plain water rinse and not stop bath since the acid in stop bath might attack some materials.

Do not exceed 20°C at any stage of processing. Preferably process at below 20°C and compensate the exposure.

Treat the surface with care and immerse it in a print developer. If this is not possible due to shape or size then pour developer repeatedly over the exposed surface. Try not to develop for more than 2.5 minutes. Fix for a good 4 minutes in the same manner as for development. Use hardener in the fixer where possible.

Washing should be done as for a normal print remembering that non-porous surfaces will wash in 5 minutes whereas porous surfaces will need 20 minutes - but gently. Drying can be done either by allowing the object to dry naturally or with the use of a hair dryer set to cool.

Only open and work in a darkroom. Red safelights for black and white photographic paper can be used. Never open in normal light. Preferably keep tub in complete darkness when not in use.

FC50 Film Cleaner

Ready to use

Code	Size
FS07340	125mls

Fotospeed FC50 is a liquid film cleaner suitable for all emulsions. It will remove greasy finger marks leaving the film free of dust and less likely to attract dust. Apply with a soft cloth and allow to dry for 30 seconds Supplied in a 125ml can.

FR10 Farmers Reducer

To make

Code	Size
FS07510	4x250mls

Fotospeed FR10 is a silver reducer supplied as powder. Although traditionally used for B&W negatives, it can also be used for reducing the density of B&W prints or any material where silver is the base. Hypo crystals are supplied in the kit for the refixing of the image after reduction.

CI10 Chromium Intensifier

Concentrate

Code	Size
FS07610	150mls

Supplied as a single liquid concentrate designed to intensify thin B&W negatives. The negative is bleached back in CI10 (diluted 1+4 with water) and then redeveloped in PRINT developer. The image will return stronger. The process can be repeated a few times to maximise intensification. There is no need to refix the negative - just wash thoroughly.

The working solution can be kept for further use at a later date.

INKJET PAPERS

A range of InkJet papers on heavy weight bases giving the image of high quality fineart prints and the feel of fineart paper. All these papers are designed for dye based inks and go through most printers

ARTIST CLASSIC

Textured Art

Code	Size	Sheets
FJ74110	A4	20
FJ74210	A3	20
FJ74211	A3+	20
FJ74310	A2	20

A double weight InkJet paper on a 210gsm base with a receiving layer for dye based inks. The surface of the paper is textured and warmtone.

PREMIUM GLOSS

Instant Dry

Code	Size	Sheets
FJ72110	A4	20
FJ72210	A3	20
FJ72211	A3+	20
FJ72310	A2	20

A double weight InkJet paper with a receiving layer for dye based inks. The surface of the paper is smooth and glossy it is both instant dry and water resistant.

PREMIUM MATT

Matt Paper

Code	Size	Sheets
FJ73110	A4	20
FJ73210	A3	20
FJ73211	A3+	20
FJ73310	A2	20

A double weight InkJet paper on a 230gsm base with a receiving layer for dye based inks. The surface of the paper is smooth and deadmatt.

BELGIAN LINEN

Textured Linen

Code	Size	Sheets
FJ75110	A4	10
FJ75210	A3	10
FJ75211	A3+	10
FJ75310	A2	10

A textured linen with a 400gsm base with a receiving layer for dye based inks. The surface is that of an oil painting and the material can be mounted on stretcher bars.

OHP FILM

Display Film

Code	Size	Sheets
FJ78110	A4	10
FJ78210	A3	10

An OHP film with an ink receiving layer on a 100µ base for the production of contact negatives for the alternative processes. Is also suitable for display film work.



