

# VARIABLE CONTRAST PAPERS



## Contrast is the key when black & white printing. Colin Leftley finds out whether variable contrast papers make the grade

If you want to get the best from your black & white negatives you need to print them yourself. You can make a print as light or dark as you wish and adjust contrast to suit the subject. The only snag is having to keep a range of paper sizes and a choice of grades at hand. One cost effective and convenient answer is to use variable contrast black & white papers - they allow a particular paper grade to be selected by using filter gels, or the dial-in filters of an enlarger's colour head.

Variable contrast papers first made an appearance in 1940. Developed by Ilford for surveillance work they were slow in speed, and gave a poor range of tones. The first resin-coated version appeared from Ilford in 1976 and although far better than the earlier fibre-based papers, still couldn't compare with fixed grade papers.

Happily things have changed considerably. Now nearly every paper manufacturer has a quality variable contrast paper to offer in resin-coated as well as fibre-based material.

We exposed nine materials using the same negative and printed them at grades from 0 to 5 using a diffuser colour

enlarger head.

Papers were processed in dishes using Ilford PQ Universal paper developer at 1 +9 dilution. We accounted for the different development times of resin and fibre materials by developing for two and three minutes respectively. An acid stop bath and rapid fixer were used to finish off processing. Resin papers received a five minute wash and double weight fibre materials a one hour wash in running water. All papers were air dried at room temperature.

Whenever using graded black & white printing paper an orange safelight filter can be used. Variable contrast papers are more prone to safelight fogging than fixed grade papers and often need a brown safelight. We handled and processed the papers with each make's suggested safelight. When using variable contrast paper for the first time it's worth taking the time and trouble to do a safelight test before printing.

Lay a solid object on top of a sheet of printing paper for 10 minutes then develop the paper. If the safelight needs to be changed or moved further away you'll see a slight difference in shade, with a whiter tone where the coin was.

### KEY

**Relative speeds:** of papers compared to Ilford Multigrade when using colour head filtration.

**Filtration:** It's possible to use most of the papers tested with Ilford Multigrade filters and obtain the grade you desire. Equally, the colour head filter values that suit Multigrade can be used for nearly all materials.

The odd paper out is Kodak Polycontrast III although, filter sets may be used successfully if you're prepared to experiment. Using Kodak Polycontrast filters with Ilford Multigrade compatible materials gives results half a grade softer than the grade indicated.

**Guide price:** is based on 25 sheets of 8 x 10 inch unless stated.

### Using a colour head for Ilford Multigrade compatible papers

- A Meopta, Agfa, Krokus.
- B Durst, Dunco, Leitz, Lupo, Kaiser.
- C Kodak, De Vere, Jobo, LPL, Paterson.

Grade	Colour head filtration		
	A	B	C
0	90Y	110Y	80Y
1/2	70Y	90Y	55Y
1	50Y	70Y	30Y
1 1/2	30Y	30Y	15Y
2	0	0	0
2 1/2	30M	30M	25M
3	40M	45M	40M
3 1/2	50M	55M	65M
4	60M	95M	100M
4 1/2	100M	130M	150M
5	200M	170M	200M

## Ilford Multigrade III RC

**Type:** Resin-coated  
**Relative speed:** Zero  
**Filtration:** Ilford Multigrade  
**Base:** White  
**Colour:** Neutral image tone  
**Availability:** 3.5 x 5in to 20 x 24in and nine roll widths. In glossy, matt and pearl surfaces.  
**Guide price:** £9.25  
**Comment:** Although this paper doesn't offer the speed of some variable contrast papers it has excellent tonality and exposure latitude. But considering it's the most expensive paper on test this should be taken for granted.



## Ilford Multigrade FB

**Type:** Fibre-based  
**Relative speed:** Zero  
**Filtration:** Ilford Multigrade  
**Base:** White  
**Colour:** Neutral image tone  
**Availability:** 5 x 7in to 20 x 24in and nine roll widths. In glossy, matt and velvet stipple.  
**Guide price:** £8.75  
**Comment:** An excellent material which lets you swap over from Multigrade RC to print your best shots with the minimum of fuss. It shares its fine tonal properties and is the fastest variable contrast fibre paper.



## Kodak Polycontrast III

**Type:** Resin-coated  
**Relative speed:** +1/4  
**Filtration:** Polycontrast III  
**Base:** Brilliant white  
**Colour:** Neutral image tone  
**Availability:** 3.5 x 5in to 20 x 24in plus six roll widths. Glossy, Lustre-Luxe or semi-matt finishes available.  
**Guide price:** £8.75  
**Comment:** Fast paper with an excellent bright white base and good shadow detail. Instructions lack colour head filter values. One of the best variable contrast papers here.



## Agfa Multicontrast

**Type:** Resin-coated  
**Relative speed:** +1/4  
**Filtration:** Ilford Multigrade  
**Base:** White  
**Colour:** Neutral black image tone  
**Availability:** 3.5 x 5in to 20 x 24in. Glossy and semi-matt finishes are available.  
**Guide price:** £8.50  
**Comment:** Excellent quality paper that's cheaper than Kodak and Ilford materials and every bit as good. The base is marginally warmer than the others, which you may prefer for some subjects. Excellent deep blacks.



## Pal Flexigrade RC

**Type:** Resin-coated  
**Relative speed:** -1/3  
**Filtration:** Ilford Multigrade compatible  
**Base:** White  
**Colour:** Neutral black image tone  
**Availability:** 3.5 x 5in to 20 x 24in. Glossy finish only.  
**Guide price:** £3.99  
**Comment:** Amazingly cheap paper that compares far more favourably with its better known competitors than you might expect. It's slower than some, but any shortfalls in quality are hard to detect.



## Pal Flexigrade Fibre

**Type:** Fibre-based

**Relative speed:** -1/3

**Filtration:** Ilford Multigrade compatible

**Base:** White

**Colour:** Neutral black image tone

**Availability:** 3.5 x 5in to 20 x 24in. Glossy finish only.

**Guide price:** £3.99

**Comment:** Slow developing paper with modest speed but excellent price. Ideal if you're wanting to make exhibition prints of your favourite shots at low cost.

## Oriental Seagull VC

**Type:** Fibre-based

**Relative speed:** -1/3

**Filtration:** Ilford Multigrade compatible

**Base:** Brilliant white

**Colour:** Cold image tone

**Availability:** 8 x 10in to 20 x 24in. Glossy surface only.

**Guide price:** £9.11

**Comment:** A quality exhibition paper with a cool image tone. Heavy paper weight allows flat air drying. Excellent tonality. Considering the quality, it's fairly priced.



## Tetenal TT Vario

**Type:** Resin-coated

**Relative speed:** +1/2

**Filtration:** Ilford Multigrade compatible

**Base:** Brilliant white

**Colour:** Neutral image tone

**Availability:** 3.5 x 5in to 20 x 27.5in in glossy and semi-matt.

**Guide price:** £28 (100 sheets)

**Comment:** Fast paper in terms of exposure and development but more costly than equivalent Agfa and Kodak papers. Light weight base means it's flimsy in larger sizes.

## Jessop VC Paper

**Type:** Resin-coated

**Relative speed:** +1/4

**Filtration:** Ilford Multigrade compatible

**Base:** Brilliant white

**Colour:** Neutral image tone

**Availability:** 3.5 x 5in to 12 x 16in. Glossy or lustre finishes.

**Guide price:** £5.69

**Comment:** Fast budget-priced paper capable of good results unless you want to obtain a true grade 4 or 5 where it falls short. Worth using if you rarely go to such extremes.



## Verdict

Out of the papers put to test, the majority were resin-coated. These papers are easy to use, combining rapid, simple handling with the ability to print any grade from one box. Every paper tested here is first rate compared to the versions of five years ago. However, differences can be seen at each end of the price scale.

At the top end the Ilford, Agfa and Kodak materials offer excellent tonality. Deep detailed shadows and bright highlights are the order of the day. In practice it's difficult to choose between them. Use the Ilford paper when you want to quickly swap to its similar fibre based partner or the Agfa if you want to pay slightly less.

Tetenal TT Vario, like Jessop VC, falls short of the 'big three' in terms of quality and if its value for money you want look no further than the amazing Pal Flexigrade RC selling at just £3.99 for 25 sheets of 8 x 10 inch.

Fibre-based variable contrast paper is fairly new on the scene and looks here to stay. For a bright white base and beautiful deep, cool blacks go for Oriental Seagull. It also dries pretty flat - those who haven't got a proper drier will appreciate this. Ilford's Multigrade FB is a fine material too, but has a pleasant neutral tone, a touch more speed and comes in a wider range of sizes. It also dovetails neatly with its resin-coated partner which can be a practical benefit.

Pal should be congratulated for its low, low price fibre-based Flexigrade. It's less bright than others, with limited contrast, but it's great for portraits. It's also a good low cost paper if you want to experiment with toning and retouching.