DUPLIKAT PRESS

RISOGRAPH PRINT GUIDE

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BLACK LIGHT GREY FEDERAL BLUE MEDIUM BLUE BLUE AQUA MINT SEAFOAM LIGHT TEAL TEAL MOSS GREEN KELLY GREEN FLUO GREEN LIGHT LIME FLUO YELLOW YELLOW SUNFLOWER FLUO ORANGE ORANGE COPPER METALLIC GOLD CORAL RED BRIGHT RED FLUO RED CRANBERRY FLUO PINK BUBBLEGUM LIGHT MAUVE BISQUE ORCHID VIOLET PURPLE

How Riso Works

Artwork is sent to the Riso via a computer connection and burned onto a roll of thermal-sensitive paper, which wraps around the print drum. Ink is forced through the rotating mesh of the drum and paper, creating a stencil. Each layer is printed using a separate drum, with inks overprinting to build up the artwork. Stencils can't be saved between print jobs, so all copies are printed in one go.

Riso doesn't promise perfection; final prints carry a unique character distinct from digital artwork and prints are manually aligned and adjusted, a process that brings with it the charm of misregistration and tiny imperfections. These quirks and idiosyncrasies are what sets Risograph printing apart!

Overprinting & Opacities

We stock 34 inks which can be used independently or overprinted to create new shades - the only exception is metallic gold, which sits on the surface of other inks. To visualise overlaid shades, set digital artwork layers to 'multiply' in Adobe. You can choose to overprint colours, or cut out to print independently. Adding trapping helps minimise gaps from misregistered layers. Be careful not to only grayscale your colour artwork, as this won't work. You will need to adjust the levels of black to achieve the correct opacities of ink colour.

Riso reads levels of black from digital artwork and cuts stencils based on this
100% black = 100% printed colour   /   50% black = 50% printed colour

Artwork Setup

We require a separate file for each colour, named with the ink colour you wish to use, for example **mediumblue.pdf** Files should be PDF, A3 size, 300dpi, with no embedded bleed or crop marks - plus a full colour reference file of the artwork. The printed colour is determined by the ink and drum in the machine, not the digital file.

Text should be set to 6pt or larger for clarity and vector files are best for crisp results. Black should be set to HEX #00000 or 100% K, saved as grayscale or RGB format (CMYK can make blacks appear more 'grey' and won't print at 100%).

Print Registration

Each layer is printed one at a time and registration is controlled manually, therefore we allow up to 3mm movement between layers. The more layers in your artwork, the higher chance of misregistration.

Double-sided prints can be tricky to align between front and back, so make allowances for this in your artwork. You won't achieve perfect alignment with Risograph, but that's part of the fun! If a design demands precision, another print method with more accuracy is a better choice.

Printable Area

The printers accept A3 sized paper (297 x 420mm) and the maximum printable area is 287 x 410mm. A 5mm blank margin needs to be left around the A3 sheet, due to Riso not being able to print full bleed. We print onto A3 paper and trim as needed - for example you'll get 2 x A4 copies / 4 x A5 copies / 8 x A6 copies from each sheet. We can also trim to custom sizes within the printable area, allowing for crop marks and 3-4mm bleed.

Artwork templates are available to download on our website and custom sizes can be set up.

Imperfections

Heavy Ink Coverage Steer clear of ink overload; large patches of concentrated ink can lead to the paper jamming in the machine or getting stuck to the drum. For large areas of colour, aim for an opacity of about 85% or less.

Roller & pick-up marks Rubber rollers feed the top 50mm or so of paper, so keep ink lighter here to avoid roller marks. A plastic needle guides paper out of the printer, which can drag through very heavy ink. Imperfections should be expected in multi-colour or double sided prints.

Ink transfer & smudging Ink can transfer from copy to copy, especially on multi-colour or heavily inked prints. Our guillotine also adds pressure when trimming, so we may recommend blotting paper (at an additional cost) to reduce this.

20pt 8pt 16pt
14pt 12pt 10pt 8pt 6pt

5pt
4pt
3pt
2pt
1pt
0.75pt
0.50pt
0.25pt
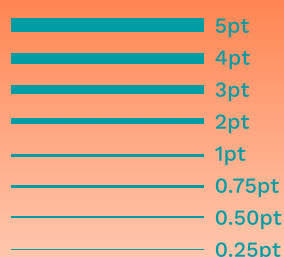
20pt 18pt 16pt
14pt 12pt 10pt 8pt 6pt

Photo & Full Colour

Riso is capable of printing full colour artworks and photographs, using a faux-CMYK method which mimics the way digital images are produced. There's a great (free!) app called **Spectrolite** which splits full colour images into layers, output as PDF files ready for Riso printing. We have digital colour swatches of our ink palette available to download which you can drop into the app, or choose your own palette.

Combinations of 2, 3 or 4 ink colours can be used and prints have the same misregistration and imperfections as regular Riso printing, producing offbeat and surprising results. Email us to enquire about full colour printing along with a sample of your artwork or photograph, so we can advise on how to make it work.

25%
50%
75%
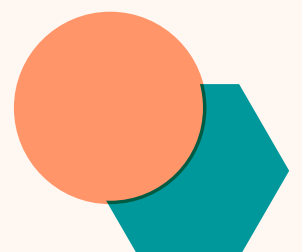100%

Max print area 410 x 287mm
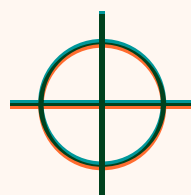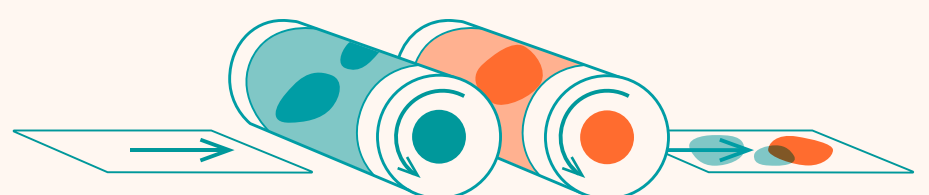

Misregistration

Roller marks

Overprint   Cut out   Trapped

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RISOGRAPH INK COLOUR CHART

We stock 34 spot colour Risograph inks, the largest selection in the UK!
Screen colours vary compared to prints and HEX codes are for reference only. We have printed swatch packs available online to compare inks in person, before deciding on a palette.

BLACK HEX #000000	**LIGHT GREY** HEX #88898A	**FEDERAL BLUE** HEX #3D5588	**MEDIUM BLUE** HEX #3255A4	**BLUE** HEX #0078BF
AQUA HEX #5EC8E5	**MINT** HEX #82D8D5	**SEAFOAM** HEX #62C2B1	**LIGHT TEAL** HEX #009DA5	**TEAL** HEX #00838A
MOSS HEX #68724D	**GREEN** HEX #00A95C	**KELLY GREEN** HEX #67B346	**FLUO GREEN** HEX #44D62C	**LIGHT LIME** HEX #E3ED55
FLUO YELLOW HEX #F7FF00	**YELLOW** HEX #FFE800	**SUNFLOWER** HEX #FFB511	**FLUO ORANGE** HEX #FF7477	**ORANGE** HEX #FF6C2F
COPPER HEX #BD6439	**METALLIC GOLD** HEX #AC936E	**CORAL** HEX #FF8E91	**RED** HEX #FF665E	**BRIGHT RED** HEX #F15060
FLUO RED HEX #FF4C65	**CRANBERRY** HEX #C24F5D	**FLUO PINK** HEX #FF48B0	**BUBBLEGUM** HEX #F984CA	**LIGHT MAUVE** HEX #E6B5C9
BISQUE HEX #F2CDCF	**ORCHID** HEX #BB76CF	**VIOLET** HEX #9D7AD2	**PURPLE** HEX #765BA7	

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RISO STUDIO PAPER STOCKS

Paper colour and texture will not match exactly - order our swatch pack online for samples. 80-120gsm is suitable for leaflets, flyers and publication pages. 160-250gsm is suitable for publication covers and posters. 300gsm is suitable for greeting cards, business cards and postcards.

CONTEXT NATURAL
135 / 190 / 250gsm

Warm off-white smooth, 100% recycled

ECHO
120 / 160 / 200 / 250 / 300gsm

Cool white lightly textured, 100% recycled

TREE FREE
120 / 160 / 200 / 250 / 300gsm

Warm creamy smooth, contains no wood

ALGA CARTA
120 / 160 / 200 / 250 / 300gsm

Warm white speckly, made with algae

CUPCYCLED
140gsm

Warm white rough, 80% waste coffee cups

STEINBEIS
80gsm

Grey-white flecked, 100% recycled

EVERCOLOR YELLOW
80gsm

Lightly textured, 100% recycled

EVERCOLOR SALMON
80gsm

Lightly textured, 100% recycled

EVERCOLOR PINK
80gsm

Lightly textured, 100% recycled

EVERCOLOR BLUE
80gsm

Lightly textured, 100% recycled

EVERCOLOR GREEN
80gsm

Lightly textured, 100% recycled

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STANDARD COLOUR PAPER STOCKS

£ **Standard range is FSC certified and chlorine-free.** Coloured paper is ordered in per job and the price depends on weight, shade and quantity - contact us for a quote. Screen colours vary to paper samples, so order swatches online to check in person.

IVORY 120 / 250gsm	**VELLUM** 120 / 160 / 225gsm	**WHEAT** 120 / 160 / 225gsm	**BUNTING** 120 / 160 / 225gsm	**CHAMOIS** 120 / 160 / 225gsm	**BLUSH** 120 / 240gsm
FLAMINGO 120 / 160 / 225gsm	**SALMON** 120 / 160gsm	**ROSE** 120 / 225gsm	**ICE BLUE** 120 / 160 / 225gsm	**MERLIN BLUE** 120 / 160 / 225gsm	**SKY BLUE** 120 / 160 / 225gsm
PIGEON BLUE 120 / 160 / 225gsm	**PEACOCK BLUE** 120 / 160 / 225gsm	**RICH BLUE** 120 / 160 / 225gsm	**REGAL BLUE** 240gsm	**NAVY BLUE** 240gsm	**TEA GREEN** 120 / 160 / 225gsm
LARK GREEN 120 / 160 / 240gsm	**LIME GREEN** 120 / 160 / 225gsm	**OCEAN** 120 / 160 / 225gsm	**WOOD PECKER** 120 / 160 / 225gsm	**DARK GREEN** 240gsm	**PALE GREY** 120 / 160 / 225gsm
OWL GREY 120 / 160 / 240gsm	**BATTLE SHIP** 120 / 180 / 240 gsm	**SKYLARK** 120 / 160 / 225gsm	**VIOLET** 120 / 160 / 225gsm	**LAPWING** 120 / 160 / 225gsm	**NOUGAT** 120 / 160 / 225gsm
CANARY 120 / 160 / 240gsm	**GOLD CREST** 120 / 180 / 240 gsm	**FANTAIL** 120 / 160 / 225gsm	**ROUGE** 120 / 160 / 225gsm	**BLOOD RED** 120 / 160 / 240gsm	**BURGUNDY** 120 / 250gsm
	WINE 115 / 170 / 210gsm	**BLACK** 120 / 160 / 225 / 270gsm			

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COLORSET PAPER STOCKS

££ **Colorset range is 100% recycled.** Coloured paper is ordered in per job and the price depends on weight, shade and quantity - contact us for a quote. Screen colours vary to paper samples, so order swatches online to check in person.

NATURAL 120 / 270gsm	**STORM** 120 / 270gsm	**LIGHT GREY** 120 / 270gsm	**ASH** 120 / 270gsm	**FLINT** 120 / 270gsm	**DARK GREY** 120 / 270gsm
NERO 120 / 270gsm	**SAND STONE** 120 / 270gsm	**SUEDE** 120 / 270gsm	**TUSCAN BROWN** 120 / 270gsm	**BLUSH** 120 / 270gsm	**PINK ICE** 120 / 270gsm
MAGENTA 120 / 270gsm	**LEMON** 120 / 270gsm	**SOLAR** 120 / 270gsm	**MANGO** 120 / 270gsm	**DEEP ORANGE** 120 / 270gsm	**CHILLI** 120 / 270gsm
BRIGHT RED 120 / 270gsm	**CRIMSON** 120 / 270gsm	**ORCHID** 120 / 270gsm	**AMETHYST** 120 / 270gsm	**AQUA MARINE** 120 / 270gsm	**LIGHT BLUE** 120 / 270gsm
INDIGO 120 / 270gsm	**MIDNIGHT** 120 / 270gsm	**DEEP BLUE** 120 / 270gsm	**LIME** 120 / 270gsm	**SPRING GREEN** 120 / 270gsm	**EVER GREEN** 120 / 270gsm

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COLORPLAN PAPER STOCKS

£££

Colorset range is FSC certified. Coloured paper is ordered in per job and the price depends on weight, shade and quantity - contact us for a quote. Screen colours vary to paper samples, so order swatches online to check in person.

NATURAL 100 / 120 / 135 175 / 270sm	**CHINA WHITE** 135 / 175 / 270gsm	**MIST** 120 / 135 175 / 270sm	**VELLUM WHITE** 135 / 175 / 270gsm	**STONE** 135 / 175 / 270gsm	**SORBET YELLOW** 135 / 175 / 270gsm	**CHARTREUSE** 135 / 175 / 270gsm
COOL GREY 120 / 135 175 / 270sm	**PALE GREY** 135 / 175 / 270gsm	**REAL GREY** 135 / 175 / 270gsm	**SMOKE** 120 / 135 175 / 270sm	**DARK GREY** 100 / 135 175 / 270sm	**SLATE** 135 / 175 / 270gsm	**EBONY** 100 / 120 / 135 175 / 270sm
COOL BLUE 135 / 175 / 270gsm	**AZURE BLUE** 120 / 135 175 / 270sm	**NEW BLUE** 135 / 175 / 270gsm	**IMPERIAL BLUE** 100 / 120 / 135 175 / 270sm	**COBALT** 135 / 175 / 270gsm	**SAPPHIRE** 135 / 175 / 270gsm	**ADRIATIC** 100 / 135 175 / 270sm
TABRIZ BLUE 135 / 175 / 270gsm	**TURQUOISE** 135 / 175 / 270gsm	**MARRS GREEN** 100 / 135 175 / 270sm	**EMERALD** 135 / 175 / 270gsm	**MID GREEN** 135 / 175 / 270gsm	**RACING GREEN** 100 / 120 / 135 175 / 270sm	**FOREST** 120 / 135 175 / 270sm
LOCKWOOD GREEN 135 / 175 / 270gsm	**PARK GREEN** 100 / 135 175 / 270sm	**POWDER GREEN** 135 / 175 / 270gsm	**PISTACHIO** 120 / 135 175 / 270sm	**HARVEST** 100 / 135 175 / 270sm	**NUBUCK BROWN** 135 / 175 / 270gsm	**BAGDAD BROWN** 135 / 175 / 270gsm
BITTER CHOCOLATE 135 / 175 / 270gsm	**CITRINE** 120 / 135 175 / 270sm	**FACTORY YELLOW** 100 / 135 175 / 270sm	**MANDARIN** 135 / 175 / 270gsm	**RUST** 135 / 175 / 270gsm	**BRIGHT RED** 100 / 120 / 135 175 / 270sm	**VERMILION** 135 / 175 / 270gsm
SCARLET 135 / 175 / 270gsm	**CLARET** 100 / 120 / 135 175 / 270sm	**AMETHYST** 135 / 175 / 270gsm	**PURPLE** 135 / 175 / 270gsm	**ROYAL BLUE** 135 / 175 / 270gsm	**LAVENDER** 120 / 135 175 / 270sm	**CANDY PINK** 100 / 120 / 135 175 / 270sm

FUCHSIA PINK 135 / 175 / 270gsm	**HOT PINK** 135 / 175 / 270gsm