

TECHNICAL GUIDE

SUPERYUPO

YUPO

PRINTING RECOMMENDATIONS

1. Let SuperYUPO acclimatise for at least 24 hours before unpacking it. It should be left to acclimatise for a longer period during the winter.
2. The ideal printing room conditions are relative air humidity: 50-60%, temperature: 20-25°C.

Feeder: Use the settings for normal print paper.

Delivery: Here it is important for the sheets to fall softly on top of the stack and not hit the sides as it may cause creasing. Turn it off if necessary and decrease the compressed air.

3. When printing on SuperYUPO, the tone value will increase by 10% over that of print paper. Please plan for this before it goes to press or for plate imaging.
4. Use ink suitable for printing on foils. Inks should dry oxidatively and comprise less than 3% mineral oil. For UV inks, please make sure that the ink series is suitable for foils. Please contact your ink provider. When using special colours, it is important to make sure they are colour-fast. It is especially important for the ink to be alkali-fast when it may be overlapped by dispersion varnish, as it may otherwise bleed out.

PLEASE CONTACT YOUR INK MANUFACTURER FOR SUSTAINABLE INK.

5. If SuperYUPO is used with normal paper in an offset printing job, we recommend printing the entire project with oxidatively drying foil inks in order to ensure that SuperYUPO is not damaged by off-gassing. If you print on SuperYUPO with UV inks, print the entire printing job with UV inks.
6. Dampening agents should be used sparingly. As the SuperYUPO surface cannot absorb dampening water, an excessive supply of moisture will cause the dampening water to build up on the printed sheet, which will progressively disrupt ink acceptance or adversely affect the drying process after printing. We therefore recommend reducing dampening in all units to such a degree that the print begins to scum/smear. Then gradually increase the dampening again until the "blotches/smears" disappear. Ink acceptance may be disrupted in the magenta printout, for example, even though there is minimal dampening on the magenta printing plate. Here it is important to check the dampening in the prior printouts (black and cyan) as dampening agents may accumulate on the printing sheet and the effects will only be seen in subsequent printouts. Observe the following: The more surface that is covered by each individual colour on the printing sheet, the easier it is to regulate the ink-to-water balance. When smaller areas are covered, an ink strip may remedy the situation.
7. For the best results with SuperYUPO, increase the surface pressure by 10 to 20%.
8. Increase the washing intervals when working with SuperYUPO. We recommend washing rubber blankets after approximately every 5,000 sheets.

9. We recommend using dispersion, print or UV varnish to increase scratch resistance. When printing with dispersion varnish, it is important to ensure the varnish dries directly after removal from the printing machine. Repositioning the printed pallets later also helps to prevent possible sticking.
10. High stacks of SuperYUPO can be inserted into the delivery. Stacks up to 60 cm in height aren't a problem with SuperYUPO. With UV offset printing, the printing inks are already cured in the delivery, which facilitates considerably higher printing stacks.
11. When using anti-set-off spray powder, your experience with coated print papers can serve as a guide. The particle sizes should be 15-25 µm.
12. Average dry time of SuperYUPO for conventional offset printing with oxidative printing ink:

100% ink coverage within 1 h
 200% ink coverage within 2 h
 300% ink coverage within 4 h
 400% ink coverage within 5-6 h

The drying times given were calculated based on careful analysis of results from tests performed by YUPO Europe. As there may be differences in print results and drying times caused by the ink type and printing conditions, please test the printing quality before printing a stack.

13. In order to prevent a ghosting effect, it is important to ventilate the stack within two days in order to remove any off-gassing resulting from the drying process. There is no need to ventilate the stack when using the UV offset method.



FURTHER PROCESSING

All adhesives, designs, laminating materials, and binding processes should be tested in advance to ensure compatibility with SuperYUPO prior to the production run.

CREASING

Creasing should always run parallel to the grain direction of SuperYUPO. When producing folded pamphlets or maps, the grain direction should run parallel to the side with the most folds. Please consult YUPO for guidance on selecting appropriate materials for laser printing with dry toner systems. To prevent reopening, creased products should be secured by weighting or bundling.

STRING AND WIRE BINDING

There should be no free space between the individual folds. The grain direction of YUPO must be taken into consideration.

ADHESIVE BINDING

We recommend using a PUR (polyurethane) or hot melt adhesive (with an EVA - ethylene vinyl acetate base). Use an additional hardener and reduce the adhesive amount. It is only advisable to use cold adhesives when YUPO is combined with absorbent materials. Longer drying times should be expected.

ADHESIVE FOLDS

The grain direction of YUPO must be taken into consideration. The adhesive must be tested in advance.

HOLE PUNCHING

Stacks between 2 and 3cm are recommended. Only use sharp drills!

PUNCHING AND PERFORATING

Punching tools should always be sharp and free of notches. In order to prevent the formation of notches and corners (that could cause tears), the inner corners must be rounded. Take this into account when designing punch dies. Punch die stopping points should be mounted in the grain direction whenever possible in order to prevent tears when it breaks away during later usage. Perforations should always start with a cut on the outer edge of the material and continue in the grain direction.

SPIRAL BINDING

To minimize the risk of tearing, all punched holes should be circular.

STAMPING

Do not use sharp stamping tools. Stamping pressure should amount to 100-200 kg/cm. The temperature of the stamping roller should be between 60 and 80°C.

FOIL STAMPING

Avoid high temperatures as this may cause the material to warp. Ask your supplier about suitable film.

HOT SEALING

Before the seal is placed, one side of YUPO should be coated or laminated with LDPE (low density polyethylene).

NOTES

LASER PRINTING

Please consult YUPO for guidance on selecting appropriate materials for laser printing with dry toner systems.

PHYSICALLY DRYING OFFSET INKS

SuperYupo is incapable for physically drying Offset inks! Please use SuperYupo Plus.

FEED DIRECTION

The grain direction of YUPO is clearly visible on the label. It is always fed parallel to the first specified length information. When YUPO tears, the tear will also run straight in the grain direction. Tears perpendicular to the grain direction are easily detectable by sound and do not propagate linearly.

STATIC CHARGE

YUPO has a special antistatic surface. Problems associated with electric charges are rarely seen when printing on YUPO. Optimal conditions should be maintained in the printing room all the same (20-25°C, 50-65% RH). YUPO should have at least 24 hours to acclimatise before printing and should be unpacked no more than one hour before printing commences. Static charge may be higher in winter as the temperatures and relative humidity are low. In such cases, an antistatic spray or antistatic strip can be used to reduce the static charge.

TENDENCY TO DUST

YUPO may have an increased tendency to dust as the anorganic filler may come out under pressure and be visible on the rubber blanket. Countermeasures: Position the extractor and roll on the feeder so that they are outside of the print layout. Adhere material to the extractor on the feeder. Use the first printout to "dust off" the machine (Caution! This could result in increased static charge).

HEAT RESISTANCE

YUPO shrinks when heated. We recommend using YUPO at temperatures between -40°C and 80°C. YUPO is capable of withstanding higher temperatures for a short period of time (e.g. during the printing process). The melting point of YUPO is approximately 160°C.

RESISTANCE TO TEAR PROPAGATION

YUPO is highly resistant to tear propagation and is rather durable. However, when the surface is damaged (notch) YUPO will tear very easily. For this reason, all machines used for cutting, hole punching or punching must be sharp and free of notches.

SERVICE LIFE

The characteristics of the surface of YUPO change after a certain period of time. It can be stored for up to one year without a problem. However, if this time is exceeded YUPO may no longer be suitable for: UV printing, TTR printing, coating. Materials for conventional offset printing generally last much longer and can be printed without a problem after being stored for a few years.

WEATHERING RESISTANCE

We guarantee the durability of our outdoor products for at least one year, even when subjected to strong UV rays. However, we do not guarantee the durability of the printed image. For outdoor use, please use inks with high lightfastness.



SUPERYUPO - DISCOVER A UNIQUE WORLD OF PRINTABLE SUBSTRATES

SuperYUPO combines the best of both the synthetic and paper worlds. This results in an extremely gentle surface, outstanding printing properties, highest colour fastness and incredible resilience. Buckling, tearing, folding - SuperYUPO is stronger than strong. Bring more brilliance to your artwork on SuperYUPO.

VERSION SUPERYUPO	THICKNESS µm	GRAMMAGE g/m ²	ROLLS mm × m	CORE mm	SHEETS mm × mm	UNIT per ream	PRINT METHODS
FEBG 95	95	73,2	1050 × 3000	76	640 × 450 640 × 900 1000 × 700	250	Offset, UV offset, Screen print
FEBG 110	110	84,7	1050 × 3000	76	640 × 450 640 × 900 1000 × 700	250	Offset, UV offset, Screen print
FEBG 130	130	100,1	1050 × 3000	76	640 × 450 640 × 900 1000 × 700	250	Offset, UV offset, Screen print
FEBG 150	150	115,5	1050 × 3000	76	640 × 450 640 × 900 1000 × 700	250	Offset, UV offset, Screen print
FEBG 200	200	158,0	1050 × 1500	76	640 × 450 640 × 900 1000 × 700	125	Offset, UV offset, Screen print
FEBG 250	250	200,0	1050 × 1500	76	640 × 450 640 × 900 1000 × 700	125	Offset, UV offset, Screen print
FEBG 300	300	234,0	1050 × 1500	76	640 × 450 640 × 900 1000 × 700	125	Offset, UV offset, Screen print
QFF 350	350	340,0			720 × 1020	on request	Offset, UV offset, Screen print
QFF 400	400	390,0			720 × 1020	on request	Offset, UV offset, Screen print

Unless otherwise stated, the grain direction is parallel to the first dimension.