

DUSENSE SENSORY COATER

HIGH DEFINITION SPOT UV SENSORY COATING

Adds impact and appeal
Combine solids and fine detail
Accurate and Easy to use

*Business cards, Greetings cards, Invitations and postcards,
Photo & wedding albums, Brochures, Book jackets,
Packaging and giftware, Promotional and advertising material*



Sensory Coating

As digital print becomes ever more commoditised, companies are having to find specialist niche markets, where the ability to provide a solution that drives customer satisfaction and real results, win over the price of the product. The DUPLO DUSENSE allows the user to differentiate themselves from competitors, within a market that is already over-crowded with surplus capacity driving print prices down. By adding a gloss three-dimensional SENSORY COATING to printed images, eye-catching designs are created which interest, entice and excite a reaction from all that view them. Retain and attract new business by creating new revenue streams. The Duplo DuSense combines ease of use, with high accuracy, to produce the most productive solution, at the lowest cost of entry for the market.



In-house Digital Finishing

In 1995, Duplo introduced compact booklet makers, which featured for the first time, an automated set-up with a repeatedly precise operation. The booklet makers triggered and lead the evolution of traditionally divided businesses of commercial printing and finishing. The Duplo DuSense combines advanced features in a small footprint, that allows short to medium print run lengths to be tackled both with ease and economy, without sacrificing quality or creativity. With a competitively priced cost per copy for runs ranging from 1 to 750, 3-dimensional and spot UV digital printing can now be brought in-house. This new product is the perfect complement to a digital press, returning the control of both profitability and time, back to your business.



High Definition

An array of the latest 600dpi ink jet heads, produce high definition images from PDF/TIFF format files, using gray scale images to create textured printing of variable density, ranging from 20 to 80-micron thickness, all in just one pass. This technology enables the combination of heavy solids and fine detail in the same image as well as smooth curves and detailing in beautiful fine lines, down to 5 point fonts

1 : Create spot layer as 5th colour

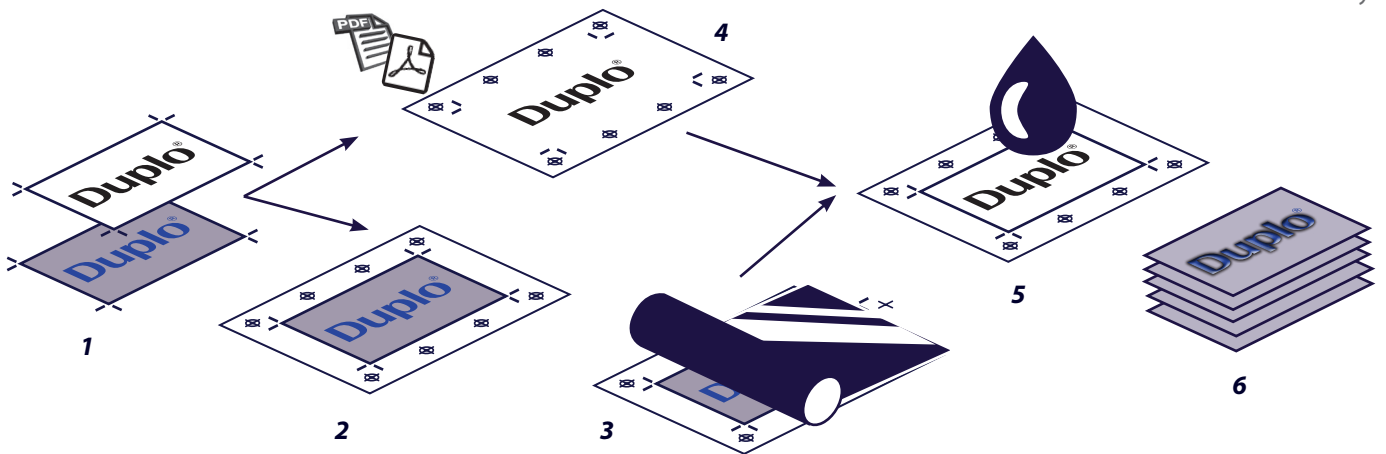
2 : Impose & print CMYK

3 : Optional laminating

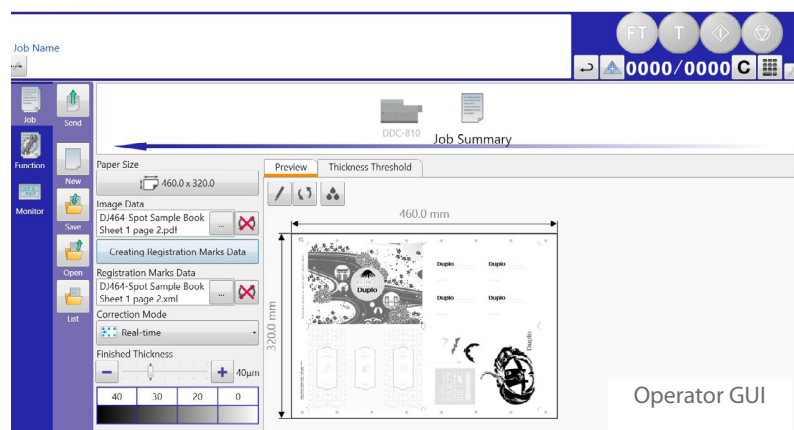
4 : Submit 5th layer as greyscale PDF or TIFF

5 : Sensory Coating

6 : Finish immediately



Cleaning and sheet registration



Operator GUI



Superb Gloss

DuSense Sensory Coating has been developed by Duplo to be compatible with HP electroink, offset and corona treated OPP laminate (*) and deliver a beautiful 99 gloss level UV finish. Spot print onto matt 'soft touch' laminate for a dynamic result.

(*) Further formulas under development



Precision as Standard

Twin cameras and the Duplo IRM (Image Register Mark) ensure alignment precision, within 0.2mm accuracy along the entire sheet length. With an automatic set-up and adjustment for every sheet, extending from XY image shift to stretch, skew (rotation) and twist (distortion) that are particularly common after laminating. This is all performed in real-time, allowing the operator to concentrate on other tasks.



Easy Operation

Efficient operation starts with the operator interface that allows jobs to be quickly set-up, saved and recalled for reprinting. Furthermore, being Windows PC compatible, means that the software can also be installed in the prepress area to use the integral job preparation tools, as well as by sales/accounts teams for estimating purposes. Instead of incorporating proprietary and unfamiliar job editing tools, the open architecture of the DuSense GUI allows other Windows compatible software such as Acrobat and image editing programmes, to be run directly at the operator console. Duplo draws from our extensive experience of feeding and finishing, to incorporate a market leading air suction feeder, which uses the proven technology of the Duplo AMS feeding system and double feed detection. The integration of every feature, aims to reduce set-up waste to a minimum and make the first print, a saleable product.



Safe and Convenient

Simple operation extends to machine operator's safety and convenience, by providing the Sensory Coating in easy loading vacuum sealed cartridges. An automatic cleaning system ensures the ink jet heads remain at their optimum condition, while also ending any requirement for the operator to access them for cleaning, which would typically be required at the start and end of each day. A benefit of the DuSense incorporating the highest quality 600dpi heads, is that wastage is reduced to an absolute minimum and the DuSense comes with the unique ability to be switched off and left unattended for up to 5 days and ready to run again in minutes.



Going to great lengths to be Productive

The DuSense supports a sheet size of 364 x 740mm, making it compatible with any "SRA3" format digital production press, or even a B2 sheet cut lengthways. Running at a healthy 1080 x SRA3/B3 sheets an hour, means that the DuSense has the functionality to run 600 sheets of 250gsm, in 30 minutes of unattended operation.



From Print to Documents

Efficient and cost effective production is not simply about the speed of the press, or cost per copy of a printed page, but about the complete end-to-end process. The Duplo DuSense has been built for the needs of the modern digital print shop, where accurate production and rapid delivery is critical. The DuSense is built for digital finishing, drying instantly and ready for job completion on compatible market leading finishing systems, such as Duplo's DC-646 and DC-746 cutter/creasers. These products can automatically cut single sheets, avoiding common problems related to 3-dimensional spot UV being cut in a stack on a regular guillotine. Enabling greater design flexibility, the systems allow cutting media with DuSense Sensory Coating into the bleed.



Delivery



3D Spot UV

Specifications

Paper size	Width: 279 to 364 mm Length: 210 to 740 mm	Sheet alignment	Side lay on non-operator's side plus sheet skew correction
Paper quality	Coated paper: 160 to 450 g/m ² OPP corona treated laminate or printable PET laminate. No film running off the edge on the registration (non-operator) side. Maximum with curl 2mm	Stacking capacity	150 mm
Print head	Piezo method Resolution 600 x 600 dpi	Noise	Equivalent continuous A-weighted sound pressure level : 72 dB , peak : 82 dB (both conditions reduced to less than 72 dB when air duct extraction is fitted)
Head cleaning	Automated cycles of purge and wipe during normal operation	Power	Three phase model: Y220 to 240 V AC/380 to 415 V AC, 50/60 Hz, 12 A/phase (peak 16 A) For PC : Single phase 208 to 240 V AC, 50/60 Hz
Cleaning frequency	Maximum idle for 5 days before flush cleaning is required	Power consumption	6000 W
Printing area	Maximum printing width: 331 mm Minimum margin 10 mm on all sides	Operating environment	Recommended Temperature 20 to 25 C, maximum range 15 to 30 C. Humidity 30 to 70% RH with No condensation. Out light 1,500lx or less
Print data format	PDF, TIFF single layer	Ventilation extraction	Connection to 200mm diameter pipe 400cfm (680 m3/hr) rated booster fan required if extraction distance exceeds 4 metres
Print correction	Automatic camera correction by reading Image Register Marks. Image distortion in length, width, skew, scaling, twist @ max. ±2 mm in the horizontal and vertical directions. XY offset @ ±5 mm in the horizontal and vertical directions Correction in Real time, Lead & trail edge, Lead only, Fully manual	Dimensions	L x W x H 3,518 x 1,454 x 1,840 mm
Print accuracy	± 0.2 mm or less	Weight	511 kg
Print thickness	20 to 80 µm ± 10 µm depending on paper quality		
Gloss level	Typically 99 GU subject to media and print		
Processing speed	1,080 x B3 sheets per hour for coating thickness @ 20 ~ 40 µm 540 x B3 sheets per hour @ 50 ~ 80 µm		
Feed tray capacity	150 mm		
Paper feeding	Belt suction from top of stack		
Sheet separation	Front and side air separation		
Cleaning	Dust removal cleaning roller		



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Duplo has a policy of continuous improvement and reserves the right to amend the above specification without prior notice

Production rates are based on optimal operating conditions and may vary depending on stock and environmental conditions. As part of our continuous product improvement program, specifications are subject to change without notice.



Ref: DUSENSE/05/17