

AFP TOP

The premium flexo plate with »Pinning Top Dot« technology

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Asahi's AFP-TOP is a premium digital flexo plate giving the printer a wide colour space with vibrant colour reproductions and soft tonal shades fading out to zero. Asahi's AFP-TOP incorporates the »Pinning Top Dot« Technology, which allows a kiss touch printing pressure setting with constant repeatability of printing quality during the production run. The »Pinning Technology« is also reducing the ink filling-in in the mid-tone area over the printing run leading to fewer cleaning intervals and press stop downtimes for the printer. Asahi's AFP-TOP plate was developed for the high quality film, coated paper and label printing application using solvent, water and UV based inks with the objective of transferring printing jobs from other printing technologies to flexography. The Asahi's AFP-TOP plate is a product solution, which can easily be fitted into existing customer environments without the need of additional machine investment. This flexibility enables the customer to react to changing market needs and keeping their business environment sustainable. The Asahi's AFP-TOP is compatible with many of the recent high definition screening and microcell patterning technologies.



The product advantages in detail:

- ▶ High resolution image and printing performance
- ▶ Finest and soft tonal gradation fading out to zero
- ▶ Wide printed colour gamut due to low dot gain and enhanced ink transfer
- ▶ »Pinning Top Dot« Technology enabling a superior ink transfer
- ▶ High printing performance with solvent, water and UV based inks on film or coated paper and label substrates
- ▶ Reduced ink filling-in in mid-tone printing leading to less press cleaning stops
- ▶ Kiss touch printing pressure setup giving increasing plate life time
- ▶ Consistent printing quality over the production run due to »Top Pinning Dot« Technology
- ▶ System compatibility with recent screening and microcell technologies.

	AFP TOP Digital Plate	
Plate specifications	1,14 mm	1,7 mm
Shore A Hardness (Teclock)	77	69
Applications	Film, Coated Paper and Label	
Ink recommendation	Water based, Solvent based and UV based Inks	
Resolution digital	175 lpi	175 lpi
Tonal range	1-95%	1-95%
Isolated line	80 µm	80 µm
Isolated dot	150 µm	150 µm
Dispro K-factor	5,98	9,89
Plate colour	yellow	yellow

	AFP TOP Digital Plate	
Plate processing parameters ① ② ③	1,14 mm	1,7 mm
Plate bump-up at 133 lpi (54 l/cm)	4%	4%
Plate bump-up at 150 lpi (60 l/cm)	4,5%	4,5%
Plate bump-up at 175 lpi (70 l/cm)	5,5%	5,5%
Back flash	550 mJ	750 mJ
Relief depth (test target)	0,6 mm	0,6 mm
Laser imaging	3,4 J	3,4 J
Front exposure	4000 mJ	4000 mJ
Wash-out speed/minute	160 mm	150 mm
UVA post exposure	1000 mJ	1000 mJ
UVC light finishing (max.)	2000 mJ	2000 mJ

① The mJ intensity is measured by ORC. To calculate the equivalent exposure time in sec. The following formula can be used:

$$\frac{\text{ORC target exposure mJ}}{\text{measured light output mW/cm}^2} = \text{sec}$$

② The mentioned plate making conditions are particular to the Asahi Photoproducts technical centre equipment and solvent specification and cannot be transferred. The values should be used with caution and understood to be a best practice start-up values for testing the plate making condition as explained in the Asahi Photoproducts AFP training manual.

③ In case the light intensity is not measured with ORC, but with Kuehnast, the following conversion can be used:

$$\text{UVA: } \frac{\text{Kuehnast mW/cm}^2 \text{ measurement}}{1,43} - 0,63 = \text{ORC mW/cm}^2$$

$$\text{UVC: } \frac{\text{Kuehnast mW/cm}^2 \text{ measurement}}{2,1} - 1,1 = \text{ORC mW/cm}^2$$

The AFP-TOP digital flexo plates can be produced in all Asahi AFP processing systems or corresponding processing equipment. The plate is exposed on the back to produce the desired relief depth and achieve maximum sensitivity to UV light. After removal of the protective film, the black mask layer is imaged by a laser. Commonly available laser types are YAG, diode or fibre laser. Then the plate is exposed, processed by a solvent wash process, dried and finished by UVA and UVC light to ensure the optimum properties of the print-ready plate.

AFP-TOP plates feature excellent compatibility with commonly used solvent, water and UV based ink systems on smooth film and coated paper substrates.

After printing, the plates should be thoroughly cleaned.

Direct exposure to sunlight and heat during storage is to be avoided.