

## Negative Pre-sensitized Offset Printing Plate Introduction

Phoeneagle negative PS plates have high pressrun, proper exposure rate, simple plate making, and perfect dot reproduction advantages and so on. In order to make the plate reach its best printing efficiency, please use it under the following conditions.

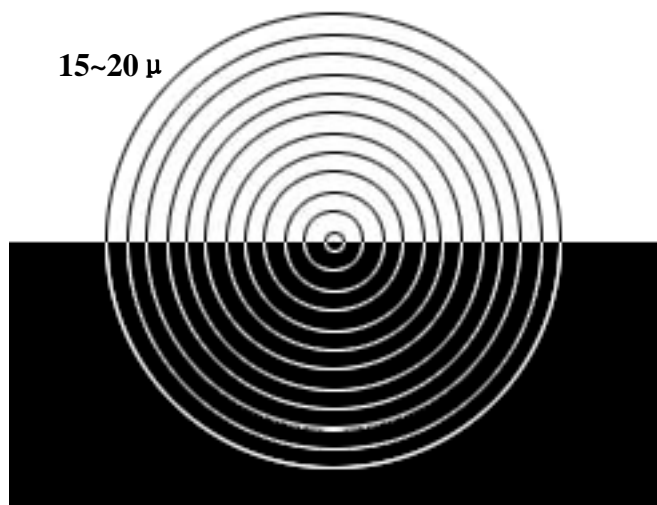
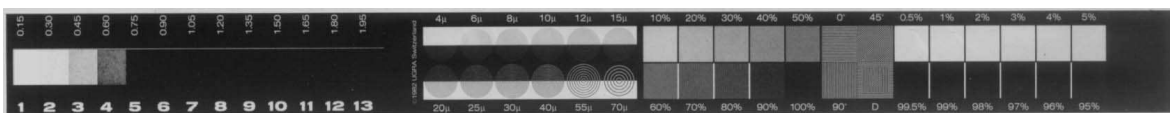
### 1. Printing down(Exposure):

Negative ps plate' exposure is finished by negative film jointing nearly with sensitive plate, spectrum range is between blue ray and ultraviolet ray (320-450nm), while exposing, the iodine gallium lamp is the most proper lamp-house and around 150mJ/c m<sup>2</sup> exposure quantum is recommended, in the actual operation, the exposure time can be different according to different exposure equipment and different film sort. So the exposure time must be decided by actual experiment result.

- (1) Put FUJI gray scale (0.15 tier) on the edge of plate and under the film, choose the proper exposure quantum to expose the plate, after finishing exposing, wash the plate, the optimum exposure quantum can be determined on the ninth step without printing ink.



- (2) Use UGRA PCW82 control strip, choose proper exposure quantum to expose it, when the 15-20um weenie line appear on the control strip, the exposure quantum reach its optimum state.



Weenie line sketch map

**(3) Remark:**

**In order to reach the most pressrun, the exposure quantum must be enough;**

**In order to prevent halftone (net dot) being scale-up, the exposure quantum can't be added or decreased optionally. Avoid the tone value, transferred from film with halftone to printing plate, increasing excessively and decreasing excessively so that the thin part of the dark area disappearing; the tone value must be controlled in the permitted range.**

**(4) Before using our plate to print, please operate it under the yellow safe light to prevent exposing before printing for fear it influences quality.**

**2. Develop**

**Kodak -956 developer and our company's negative developer are strongly recommended.**

**Develop temperature:  $25 \pm 2^\circ\text{C}$  developer's dilution ratio(developer: water):  
1:1(our own developer) 1:2(kodak 956 developer)**

**Develop time: 30-60 seconds.**

**Manual develop: must scrub, wash off remnant developer on the surface of plate.**

**Automatic develop: develop machine must be equipped with brush to reinforce developing efficiency.**

**Introduction:**

**(1) Because the developer from different area is of diversity, some of negative plate will appear shallow yellow on the surface after developing, with the plate substrate being using, the shallow yellow will disappear automatically, it won't influence printing effect (Kodak -956 developer has no such problem).**

**(2) In order to solve the problem, you can expose the developed plate once again, that will not only eliminate the shallow yellow but also enhance pressrun.**

**3. Correction:**

**In order to wipe off the excrescent image and stain, you can lay right quantity negative remover on the surface of image or stain. 15 seconds later, wash the surface.**

**4. Inking up (Dip ink):**

**The function of dipping ink to negative plate is to enhance the image area's capability of absorbing ink and enduring fretting. The negative plate must be laid a layer of sensitive colophony additionally on the image area.**

**5. Lay on gum.**

**The gum must be diluted under the manufacturer's requirements, and the layer should be well-distributed. Too thin or too thick all will influence the effect, and if you lay on gum automatically, please control the drying temperature.**

**6. Storage**

**(1) Before using: The negative plates should be stored in the cool ( $10\text{--}30^\circ\text{C}$ ), dark and dry place. Relative humidity  $\leq 60\%$ .**

**(2) Storage life: six months.**

