Title (en)

Method for accurate exposure of small dots on a heat-sensitive positive-working lithographic plate material

Title (de)

Verfahren zur genauen Belichtung von kleinen Punkten auf eine Wärmeempfindliche positiv arbeitende Flachdruckplatte

Title (fr)

Méthode pour l'exposition précise des points de petite dimension sur une plaque lithographique positive sensible à la chaleur

Publication

EP 1588847 B1 20070509 (EN)

Application

EP 04101647 A 20040421

Priority

EP 04101647 A 20040421

Abstract (en)

[origin: EP1588847A1] A method is disclosed for accurate reproduction of high-quality halftone images comprising microdots by means of lithographic plate materials which comprise a heat-sensitive positive-working coating that requires wet processing. Such microdots have a dot size ≤25 mu m and may be obtained by stochastic screening or by amplitude-modulated screening at a ruling of not less than 150 lpi. It has been established that the "physical right exposure energy density" (physical REED) lies in the range from CP to 1.5*CP, wherein the physical REED is defined as the energy density at which the physical area on the plate, occupied by a microdot corresponding to a 50% halftone in the image data, coincides with the 50% target value; and wherein CP is the clearing point of the plate which is defined as the minimum energy density that is required to obtain, after processing, a dissolution of 95% of the coating. An accurate reproduction of microdots can therefore be achieved by exposing the material with light having an energy density in the range from CP to 1.5*CP. Loss of microdots by overexposure is thereby avoided. <IMAGE>

IPC 8 full level

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