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Coarse screen field 50% measured density 0.30

Fine screen field 50% measured density 0.42

Dot enlargement 0.12 (= ca. 12%)

The measured screen dot enlargement of 12% (50% becomes 62%) represents an index figure for the print in question.

As might be expected, a more sharpened, open print has a smaller screen dot enlargement:



Coarse screen field 50% measured density 0.29

Fine screen field 50% measured density 0.35

Dot enlargement 0.06 (= ca. 6%)

In opposition to this, a so-called thickened print shows marked screen dot enlargement:



Coarse screen field 50% measured density 0.32

Fine screen field 50% measured density 0.51

Dot enlargement 0.19 (= ca. 19%)

For the two other pairs of fields with 70% and 20% surface coverage, measurement yields corresponding values for the screen dot enlargement.

Conversion of densities into percentage of surface coverage

Since it is more common and more meaningful to give the surface coverage of screen steps in percentages rather than densities, a method for conversion seems to be desirable. For practical purposes, the following rule of thumb will do:

For the density range 0.30 to 0.50, density can be taken to be equivalent to surface coverage:

e.g. dot enlargement at screen step 50% = 0.10 = 10%.

For the density range 0.15 to 0.25, the measured value is doubled:

e.g. dot enlargement at screen step 20% = 0.04 x 2 = 8%.

For the density range 0.60 to 0.90, the measured value is halved:

e.g. dot enlargement at screen step 70% = 0.20 : 2 = 10%.