of measurement if the densitometer has no polarisation filter. It is well known that the density value of the printed ink sinks sharply during the first five minutes after printing.

4. Contrast

The contrast can be calculated from the results of density measurements of solid and tone with the formula:

$$\frac{Dv - Dr}{Dv}$$

The greater the resulting contrast value is, the better is the image transfer of a blanket.

Example:

Dv = density of solid Dr = density of halftone

$$\text{Blanket A} = \frac{1.39 - 0.68}{1.39} = .51$$

Contrast value with blanket A = .51

A further way of determining the contrast value is to use the Nomogramm developed by Fogra (fig 3).

5. Dry measurement

To confirm the results obtained, the sheet is measured again when the ink has dried, after each individual test. This is especially necessary when measurements are made without polarisation filter. The result will be a lower density value, but it must be the same for all blankets in relation to the wet measurement value. If there is a wide difference in one case, the result of the wet measurement is to be doubted. The same sheets and control strips must be used in dry as in wet measuring.

6. Surface smoothness

Surface smoothness is only partially appreciated with the densitometer. It is, however, especially significant in the printing of bright colours on coated paper. Smoothness can be well judged with a magnifying glass.

7. Pressure points

The reaction of a blanket to the effect of a foreign body (e. g. sheet folded over, wrinkles, etc) is important, but not scientifically measurable. In order to gauge this effect, a piece of card about .020" thick is stuck down at a certain place on the sheet, which should be at the gripper edge so that the pressure point can later be drawn into the cylinder gap. Also, this pressure point must be in a picture. The sheet with the piece of card on it is run through the machine under printing pressure and 50 sheets are printed after it. The pressure point disappears quickly or slowly according to the quality of the blanket. The result is entered in the table.

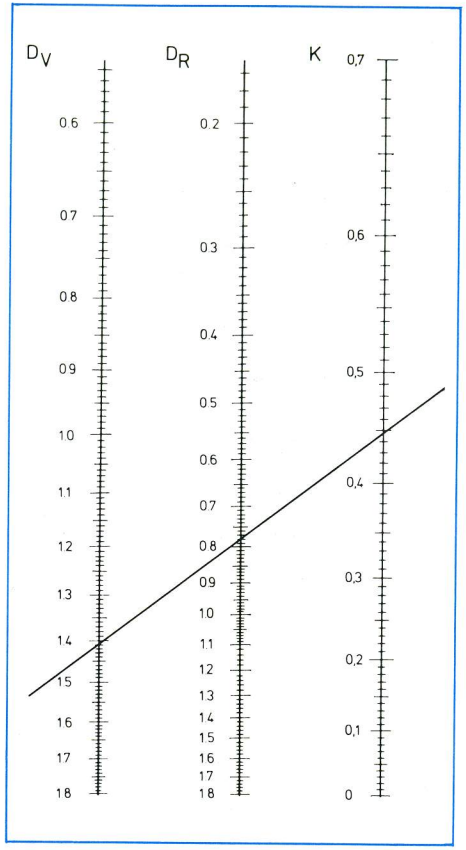

Fig 3: Nomogram to determine the contrast value

8. Printing width at sheet-end

The printing width is measured on the plate with calipers or a steel ruler, so that comparison can be made with the widths on the blanket and the printed sheet. The less variation there is, the better is the lateral stability of the blanket.

9. Signal strip at sheet-end

The printing plate must have a series of reference marks. While control strips for densitometry are suitably placed at the beginning of the sheet, a signal strip is added at the end of the sheet for visual judgement of tonal value alterations. With normal setting between plate and blanket, no ghosting should occur. Results to be entered in table.

10. Increase in plate pressure

The reaction of a blanket to increased printing pressure can be judged both technically and visually. In this case sheets must be printed in which the density of the control field is the same as in the above-mentioned density measurements. The contrast can be calculated according to a familiar formula from this density value and that of the solid area.

Fig 4: Curling effect of the printed sheet at trailing edge