

Contrast is generally reduced by excess pressure between plate and blanket. The less difference occurs, the more suitable a blanket is for practical use. While it is not difficult to obtain good results with a new blanket at a normal pressure of .004", this is not always possible with a blanket that has undergone some damage through faulty sheets, despite time-consuming makeready.

11. Signal Strip at sheet-end

Reaction to excess pressure can be additionally recognised and is entered in the table.

12. Increase in blanket pressure

Measurement can be made in this case as with plate pressure, but the variations here are relatively small. A variation of printing width appears more strongly and can be gauged with the calipers, giving further data about lateral dimensional stability.

13. Adhesion

There is no measuring instrument for this important characteristic, but it can be gauged by the curling effect at the end of the printed sheet. A solid is printed with the gummed plate on about 50 sheets, which are then laid out on a flat surface. Owing to the tackiness of the blanket, which is increased by inking, the back edge of the sheets curls. The curl (fig 4) can be measured with a ruler. The smaller the result, the less adhesion force a blanket has. A strong adhesion force or sticking effect makes great demands on the stability of the paper, particularly in four-colour machines, leading to the well-known 'ghosting' effect. In addition, picking and other forms of damage to the paper surface are caused.

In this test care must be taken that the ink feed is correct with testing periods of equal duration, since the tackiness could vary with differing downtimes. If an art paper of approx. 80-90 gsm is used throughout the series of tests, the curling angle at the end of the sheet is visible even without the use of ink, so the inking rollers can be thrown off.

Finally, the most suitable blanket in relation to price can be judged from a summary of

the test results. As in the table, the best values can be indicated, or one can enter the characteristics according to a point system and add them up. One must obviously consider the types of job to be undertaken and the demands to be made of a blanket. Whereas in carton printing the price, dimensional stability, equalisation after damage and smoothness of solids are essential, in printing on coated paper it is the contrast (i. e. dot-for-dot image transfer) and adhesion strength which are the important features of a blanket. Every printing firm must make up its own mind on these points, and in general two makes of blanket will be bought for reasons of price difference. It is certain, however, that the series of tests makes it possible to find the most appropriate blankets from among the many kinds available. It must also be mentioned that after lengthy use, blankets alter their characteristics, whether through external influences like washing fluids and inks, or because of some intrinsic quality of the rubber. Increased tackiness, inferior ink transfer and relief build-up can also have an influence. A second test may be needed. For this purpose all tested blankets (at least the most suitable ones) must be used for about 100,000 impressions, taken out of the machine, and re-tested for the points which appear most essential.