

ECMA

EUROPEAN COMPUTER MANUFACTURERS ASSOCIATION

CONTINUOUS STATIONERY
IN ROLL FORM

June 1972

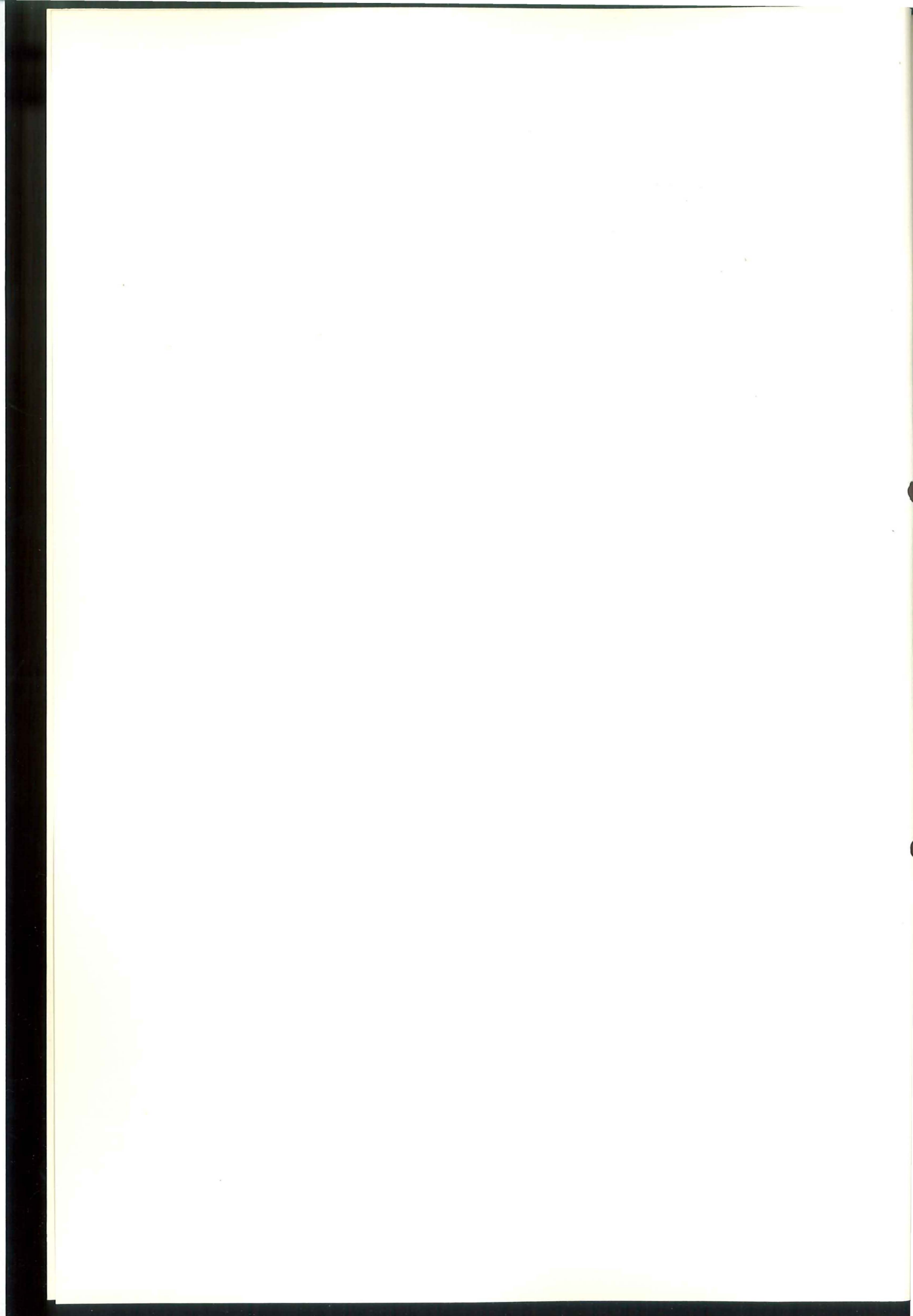
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BRIEF HISTORY

Following the publication of the ECMA recommendation for Sizes of Sprocket-Punched Continuous Forms for Data Processing, ECMA TC14 have prepared this document related to the dimensions and characteristics of continuous stationery in roll form without sprocket holes for use in teleprinters and character-by-character low speed data printers.

In drafting this recommendation the following considerations have been borne in mind :

- It is internationally recognized that telex teleprinters have a standard line of text length of 69 characters. This is established by CCITT to facilitate international operation between telex subscribers.
- For some applications there is a requirement for text lengths longer than 69 characters.
- The predominant line spacing for these printers is 4,23.. mm (1/6 inch) and the character spacing is 2,54 mm (1/10 inch). The character spacing and the standard CCITT line have been taken into account to determine the minimum width of the roll.

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1. SCOPE

This document applies to continuous stationery without sprocket holes in single and multipart rolls, for use by on-line and off-line character-by-character printers.

An Appendix is added to include single part paper rolls with sprocket holes since there are uses for this type of roll.

2. DIMENSIONS OF ROLL

2.1 Widths

- a) For 69 and 72 characters per line

Width of roll $210 \begin{smallmatrix} + 0 \\ - 1,0 \end{smallmatrix}$ mm

- b) For 80 characters per line

Width of roll $240 \pm 1,0$ mm

- c) For 100 characters per line

Width of roll $297 \pm 1,0$ mm

- d) For 120 characters per line

Width of roll $340 \pm 1,0$ mm

2.2 Outer diameter

Size 1 maximum diameter 90 mm

Size 2 maximum diameter 120 mm

Size 3 maximum diameter 170 mm

Users should check that their machines have facilities for accepting the larger diameter rolls.

Size 3 is allowed only in rolls having a width of 210 mm.

2.3 Bore diameter

Bore diameter of core:

$25 \begin{smallmatrix} + 1,0 \\ - 0 \end{smallmatrix}$ mm

3. PHYSICAL PROPERTIES

3.1 Material

The paper may be manufactured from chemical and/or mechanical pulps. The proportion of mechanical pulp should

not exceed 50%.

3.2 Smoothness

100 - 400 ml/min Bendtsen

65 - 12 sec Bekk.

3.3 Tensile strength

Machine direction - 25 N/15 mm minimum.

3.4 Writeability

It should be possible to write with either pen and ink or ball point pen on the paper surface.

4. OTHER CHARACTERISTICS

4.1 Colours

White or tinted, excluding pink, as agreed between user and supplier.

4.2 End marker

The inner end of the web shall be provided with a conspicuously coloured warning stripe, e.g. coloured stripe approximately 3 metres long. The marker dye must not cause a sticking of the paper.

4.3 End fixing

The paper should not be fixed to the core. If fixing is demanded, the method must be agreed between the user and supplier.

5. SINGLE PART ROLLS

5.1 Basis weight

A minimum of 50 g/m² is recommended.

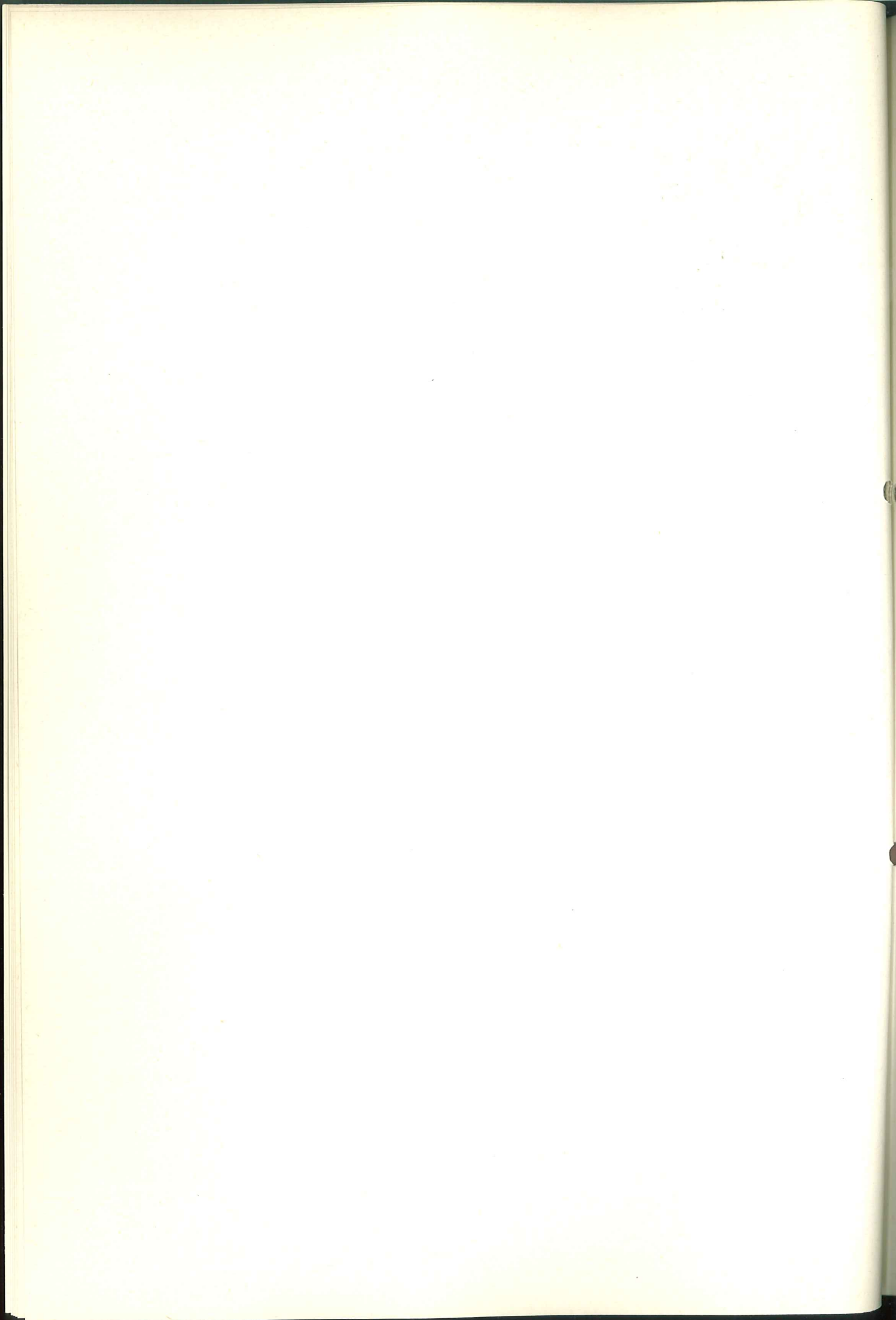
6. MULTIPART ROLLS

6.1 Basis weight of parts

A minimum of 40 g/m² is recommended.

6.2 Number of parts

Up to six.



6.3 Method of winding

The rolls should be wound with the carbon coating facing the roll centre. Reverse winding is subject to agreement between the user and the supplier.

7. CARBON PAPER

7.1 Material

Tissue manufactured from 100% chemical pulp should be used. A mixture of chemical and mechanical pulps may be acceptable.

7.2 Basis weight

Depending on the number of copies required the basis weight should be 14 - 22 g/m².

7.3 Coating

The coating should be uniform and provide an image which, under normal filing conditions, remains legible for a period of ten years. Its transfer properties should be maintained for at least one year.

7.4 Width

If the width of the paper = W, the width of the carbon paper shall be within the limits of W and W-4 mm.

8. SELF COPYING PAPERS

A number of self copying papers are available. Some of these papers meet the requirements in this document. Where this is not the case advice on their application should be sought from the paper supplier.

9. PACKAGING

9.1 The paper roll shall be continuous without joins.

9.2 The paper shall be wound on pasteboard or plastic cores (tubes) of adequate rigidity to maintain the roll of paper substantially concentric during storage and transport as well as during unreeling in use. The ends of cores shall be protected by suitable means which can be easily removed immediately before fitting the paper roll to the machine. The cores shall not protrude beyond the ends of the reeled paper.

- 9.3 Rolls shall be packed on end in boxes, with a label on the outside indicating the axis of the rolls.

10. STORAGE

Paper is a material which is rapidly and considerably affected by variations in temperature and humidity during storage or use. Variation in humidity is the more serious, since changes will affect the size and strength characteristics.

10.1 Temperature and Humidity

Continuous stationery rolls should be stored in the following conditions :

40% R.H. to 60% R.H.

16°C to 24°C

10.2 Stacking

The boxes containing the rolls should be kept unopened until required for use. The rolls should be stacked on end and not on the sides and should be stored away from radiators, pipes, hot air ducts, open windows, etc.

11. TEST METHODS

- | | | |
|-----------------------|---|---|
| 11.1 Test conditions | - | 23°C ± 1°C
50% ± 2% R.H. |
| 11.2 Smoothness | - | Bendtsen BS 4420-69
Bekk TAPPI T 479 Sm 48 I |
| 11.3 Tensile strength | - | TAPPI T404 TS66 |
| 11.4 Basis weight | - | TAPPI T410/OS-68 |

APPENDIX

SPROCKET PUNCHED ROLL STATIONERY

There is a demand for single part sprocket hole punched roll stationery. This stationery is characterized by using sprocket pins for paper transport instead of friction drive. It is supplied in roll form instead of in zig-zag packs.

These papers may be pre-printed or plain and furnished optionally with horizontal and/or vertical tear off perforations.

A.1 DIMENSIONS

The ECMA White Cover Document "Continuous Sprocket-Punched Stationery, Part I, Recommended Sizes", is referred to in the following clauses.

A.1.1 Form depth sizes

If the paper is preprinted: Section 3.

A.1.2 Sprocket holes

Section 5 and Figure 2.

A.1.3 Width sizes

Table A.2.

The following widths apply:

- a) for 69 and 72 characters per line the width shall be

$$216 \text{ mm } \begin{matrix} + 0 \\ - 1,0 \end{matrix}$$

- b) for 80 characters per line the width is $250 \text{ mm } \begin{matrix} + 0 \\ - 1,0 \end{matrix}$.

There exists, however, a requirement for a width of $240 \text{ mm } \begin{matrix} + 0 \\ - 1,0 \end{matrix}$ which may be used.

- c) for 100 characters per line the width shall be

$$297 \begin{matrix} + 0 \\ - 1,0 \end{matrix} \text{ mm}$$

- d) for 120 characters per line the width shall be

$$340 \begin{matrix} + 0 \\ - 1,0 \end{matrix} \text{ mm}$$

A.2 PHYSICAL PROPERTIES

The ECMA White Cover Document "Continuous Sprocket-Punched Stationery, Part II, Physical Properties, Fastenings, Packaging and Storage" is referred to in the following clauses.

Material : Subsection 2.2

Smoothness : Subsection 2.3

Strength : Subsection 2.4

Writeability : Subsection 2.5

Perforations
(when specified) : Section 8

A.3 BASIS WEIGHT

Between 45 and 60 g/m².

A.4 ROLL CHARACTERISTICS

Subsections 2.2, 2.3 and Section 4 of this document apply.

