

SRI LANKA STANDARD 169:1983
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SPECIFICATION FOR
DUPLICATING INK, FOR SINGLE DRUM
ROTARY MACHINES
(FIRST REVISION)

BUREAU OF CEYLON STANDARDS

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FOREWORD

This Sri Lanka Standard was authorized for adoption and publication by the Council of the Bureau of Ceylon Standards on 1983-04-08, after the draft, finalized by the Drafting Committee on Duplicating Ink, had been approved by the Chemicals Divisional Committee.

This specification was originally issued in 1972. In this revision an additional requirement, namely fineness of dispersion has been included. Requirements for emulsion and water content have been deleted, as the Drafting Committee responsible for the preparation of this specification felt that in the case of emulsion based ink, a high water content will be reflected in the other characteristics given in the specification. However as a guideline to manufacturers of emulsion based ink, a water content not more than 25 per cent is recommended.

All standard values given in this specification are in SI units.

For the purpose of deciding whether a particular requirement of this specification is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with CS 102. The number of significant places retained in the rounded off value should be the same as that of the specified value in this specification.

In the preparation of this specification, valuable assistance derived from the relevant publications of the Indian Standards Institution and the United States Federal Supply Service, General Services Administration is gratefully acknowledged.

1 SCOPE

This specification prescribes requirements and methods of sampling and test for duplicating ink, for use on drum-type single cylinder rotary duplicating machines.

2 REFERENCES

- CS 3 Paper sizes
- CS 102 Presentation of numerical values
- SLS 428 Random sampling methods
- SLS 535 Methods of test for paints
Part 3 : Tests associated with paint film formation
- SLS 587 Stencil paper

3 DEFINITIONS

For the purpose of this specification, the following definitions shall apply:

- 3.1 clogging : Interruption in free flow of ink during operation.
- 3.2 impression : The print resulting from one cycle of the duplicating machine.
- 3.3 set-off : An undesirable transfer of ink from the printed sheet to the back of the sheet adjacent to it.
- 3.4 oil halation : The transparent halo surrounding each character as a result of oily materials in the ink separating in the paper.
- 3.5 shelf life : The length of time an unopened container of ink can be kept without deterioration of the ink.
- 3.6 strike through : The visible effect seen on the reverse side of the sheet due to the penetration of ink or vehicle into or through the paper.
- 3.7 tack : Slight stickiness of the surface of a film of material, apparent when the film is pressed with the finger.
- 3.8 vehicle : The liquid part of the ink in which the pigment is dispersed.
- 3.9 viscosity : The internal resistance to flow possessed by a liquid.

4 REQUIREMENTS

4.1 General requirements

The ink shall be uniform free from skins, lumps and other separated materials which will not disperse easily in the vehicle. It shall also be free from any toxic materials and shall not have or develop any objectionable odour during the duplicating operation.

4.6.2 Stability

The material shall not show any appreciable variation in its apparent consistency when tested as prescribed in Appendix D.

4.7 Shelf life

The ink in unopened containers shall be workable after storage under normal conditions for a period of one year from the date of manufacture.

4.8 Fineness of dispersion

The pigment particles in the medium shall not be coarser than 50 μm when tested by the method prescribed in SLS 535:Part 3:Section 3.8.

5 PACKAGING

Ink shall be packed in suitable containers, so designed to provide for the efficient and complete utilization of the ink contained therein and shall not leak in transit. Containers shall be individually packed in paperboard boxes, or any other suitable enclosure.

6 MARKING

6.1 Each box and the enclosed container shall be marked legibly and indelibly with the following information.

- a) Name of the material and type of machine on which the ink is to be applied;
- b) Colour;
- c) Name and address of manufacturer;
- d) Registered trade mark (if any);
- e) Month and year of manufacture;
- f) Net mass, in g, of the material; and
- g) Batch or code number.

6.2 The containers may also be marked with the Certification Mark of the Bureau of Ceylon Standards illustrated below on permission being granted for such marking by the Bureau of Ceylon Standards.



NOTE - The use of the Bureau of Ceylon Standards Certification Mark (SIS Mark) is governed by the provisions of the Bureau of Ceylon Standards Act and the regulations framed thereunder. The SIS Mark on products covered by a Sri Lanka Standard is an assurance that they have been produced to comply with the requirements of that standard under a well