



1. ITix TICKET MATERIAL

PHYSICAL DIMENSION OF TICKET MATERIAL ON ROLL FOR USE ON THE PRINTRONIX SL/T4M PRINTERS

THE PAPER TICKET MATERIAL WILL BE SUPPLIED IN CONTINUOUS ROLL, WITHOUT JOINTS, SPLICES OR BREAKS NAD WOUND ONTO A CENTRAL CIRCULAR CORE

1. CORE DIMENSIONS

1.1 the inner core of the roll will have the following dimension:

- Inner dimension :76mm
- Core thickness :5mm
- Exeternal diameter :86mm
- Wicth :86.5mm

1.2 The core of the roll will preferably be made of a cardboard material suitable for the purpose and will not be deformed or collapse under normal condition of transport or storage

1.3 The material must not be attacheds with sticky tape to the inner core

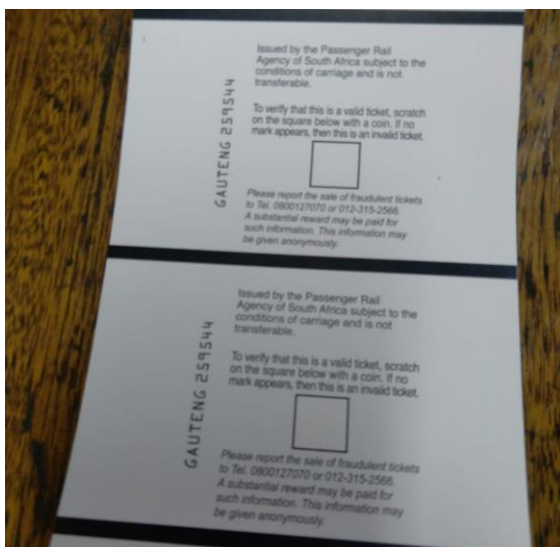
2. Ticket Material Roll Dimension

2.1 The material will be wound evenly on the core and with sufficient tension , so as to prevent telescoping with normal handling.

2.2 The ticket material will be wound on to the inner core in the following direction :

- With the roll resting on a horizontal surface, and viewed from the top, the material will be wound in a clockwise direction with the conditions of transport facing to the inside (revese side) and the printing surface facing outward.

2.3 A black line of 3 mm must be printed across the width of the ticket material every 54mm.



2.4 The thickness of the ticket material will be 0,250mm+-0,025mm. the thickness should be measured as per BS3983 part 2 of 1982(ISO 534 1980).

2.5 The mass of the material will be 220-g/m² ± 10 g/m².

2.6 Roll Dimensions

2.6.1 The external diameter of a fully wound roll will be 203mm ±1mm

2.6.2 The length of the material on a roll will be 100 meters.

2.6.3 The width of the ticket material roll must be 86.5mm

Note : the width of the ticket will be 54mm±0,4mm

The length of ticket will be 86,5mm ± 0,7mm.

GENERAL DESCRIPTION of ITix TICKET MATERIAL

1 Construction

1.1 The ticket may be either of a single or multiple layer construction, and will comply with the specifications as prescribed in the Annexure D to E to this document. Where multiple layers are used , the layers will not separate under normal use .

1.2 The face and reverse side of the ticket will be suitable for accepting printed information.

1.3 Both side of the ticket may be required to carry pre-printed information and\ or background printing.

1.4 The material will be supplied in continuous roll,without joints, splices or breaks and wound onto a central circular core

1.5 The final acceptability of the material will be determined by the performance of the tickets in service.

2 Quality of Material

2.1 The base material will be free of hole,electrically, magnetically and thermally conductive particies, loose dust,loose power,fuzz,residue chemicals and slime spots likely to damage or impede the operation of the printing machines or readers.

2.2 The base material will be free of joints,cracks,high spots,burrs,splinters ,sharp edges and dents.

2.3 The base material will be free of any othe defect not listed above,which might detract from the magnetic printing, general performance or appearance of the final product.

2.4 The base material will be free of any translucent areas or spots that could affect the operation of optical sensors.

2.5 The material will be free of any wrinkles or creases.

2.6 The ticket materials will not cause injury either by contact, inhalation or ingestion.

2.7 The characteristics of the material should be such that dirt accumulation and wear of the machines should be restricted to a minimum:hence the material must be capable of being cleanly cut without forming dust or burring.

2.8 The material should be treated to prevent the generation of static Electricity sufficient to impair its serviceability.

2.9 The ticket material will be unaffected by magnetic fields,and will retain no detectable residual magnetism.

2.10 The quality of the material will be such so as to ensure uninterrupted operation of the ticket issuing device, and allow good quality print, using both thermal and impact type printers, but predominantly for thethermal printing.

2.11 The printing on the ticket material must last for at least 5 weeks and should not fade.

3 Quality Control

Quality of ticket material is very important. The successful tenderer will be responsible for the quality of ticket material at all times.

4 Printing Surface

4.1 the entire face of the ticket is define as the “ printing surface” and will conform to the following requirements.

4.2 Resolution

The quality of the printing surface will provide adequate resolution of printed characters and graphics when using a thermal printing head with a line density of six dots per millimeter.

4.3 Absorbability

The printing surface will be sufficiently absorbent to ensure proper keying of the thermal transfer ink while remaining dimensionally stable within the specified humidity range.

The printed characters will not smear when wipe over by a felt pad one second after being printed by the machine, under service conditions.

4.4 Durability

It must not be possible to erase printed characters without damaging the surface of the ticket.

4.5 Security Background

A security background needs to be printed on the printing surface of ticket material. The purpose of the security background is impede forging of tickets and to assist with the identification of forged material and tickets.

4.6 Quality of Security Background

Security background printing will not affect printing qualities of the ticket material.

It will not affect the ability of material to accept printing . Simultaneously, security background printing may not affect the ticket issuing machine in any way.

4.7 Number of Security Background Colours

It is a requirement that security background colours be changed on a regular basis. Tenderes are to provide the option to provide security background in 6 different colours.

4.8 Colours Used for Security Background

Tenderes are required to suggest colours to be utilised in printing the security background. It must be difficult to make acceptable photocopies or electronic scanning of security background printing. Amongst others, tenderes should investigate using neon or metallic inks. Only one colour to be used at the time.

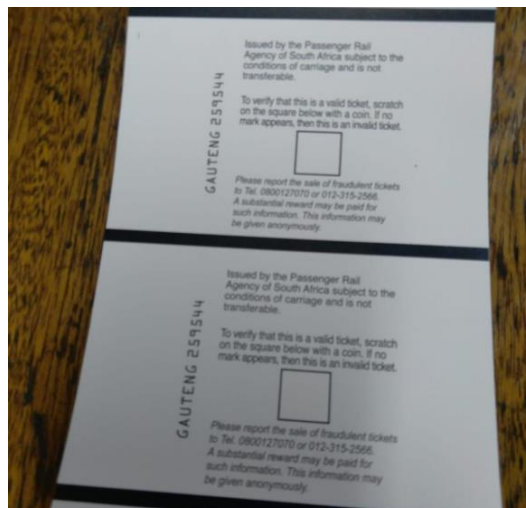
4.9 Description of Security Background Printing for Metrorail

Viewing a ticket from the printing face side of a ticket in the portrait orientation, background security printing will be printed at an angle of 45 degrees , from the lower-left hand to upper right-hand side

Security background printing will consist of the word METRORAIL printing in the official font. The word will be repeated and spaced such that orientation of words between lines does not coincide. Full details will be furnished to the successful tender.

4.10 Printing the Metrorail Conditions of Sale on Reverse Side of Ticket

A statement referring to the general conditions of the sale will be printed on the Reverse side of a ticket. Message to be supplied on order.



4.10.1 Orientation of Printing

For the purpose of describing printing on the reverse side of ticket material, a ticket will be viewed in the landscape orientation.

4.10.2 Printing of Messages

Provision must be made to print short messages on the reverse side tickets of which the following is an example:

4.10.3 Condition of Sales

The condition of sale must be printed on the reverse side of the ticket. The following text is required:

“Issued by the Passenger Rail Agency of South Africa subject to the conditions contained in its Metro Services Book which are obtainable on request”.

The note will be printed such that:

- A minimum clearance of 2 mm is maintained between the notice and the edge of the ticket.
- Regardless of the registration of the edge of the ticket with regards to the beginning of a notice, at least one complete notice will be displayed on any ticket.

4.10.4 Changes to Text

It is probable that Metrorail will require changes to the “Conditions of Sale” text from time to time. The changes will be negotiated with the successful tenderer. It is expected when requests are reasonable, financial implications to Metrorail will be negligible.

4.11 Advertising Space

The reverse side of the ticket will be used for advertising. An advert of 35mm X 25mm will be printed on the reverse side of the ticket which will be discussed with the successful tenderer who must be able to print colour adverts.

5. Regional Name and Numbering of Metrorail Ticket Material

Viewing a ticket from the printing face side of a ticket in the portrait orientation with the outer end pointing upwards, the regional name and roll numbering shall be printed at an angle of 90degrees, on the right hand side of the ticket.

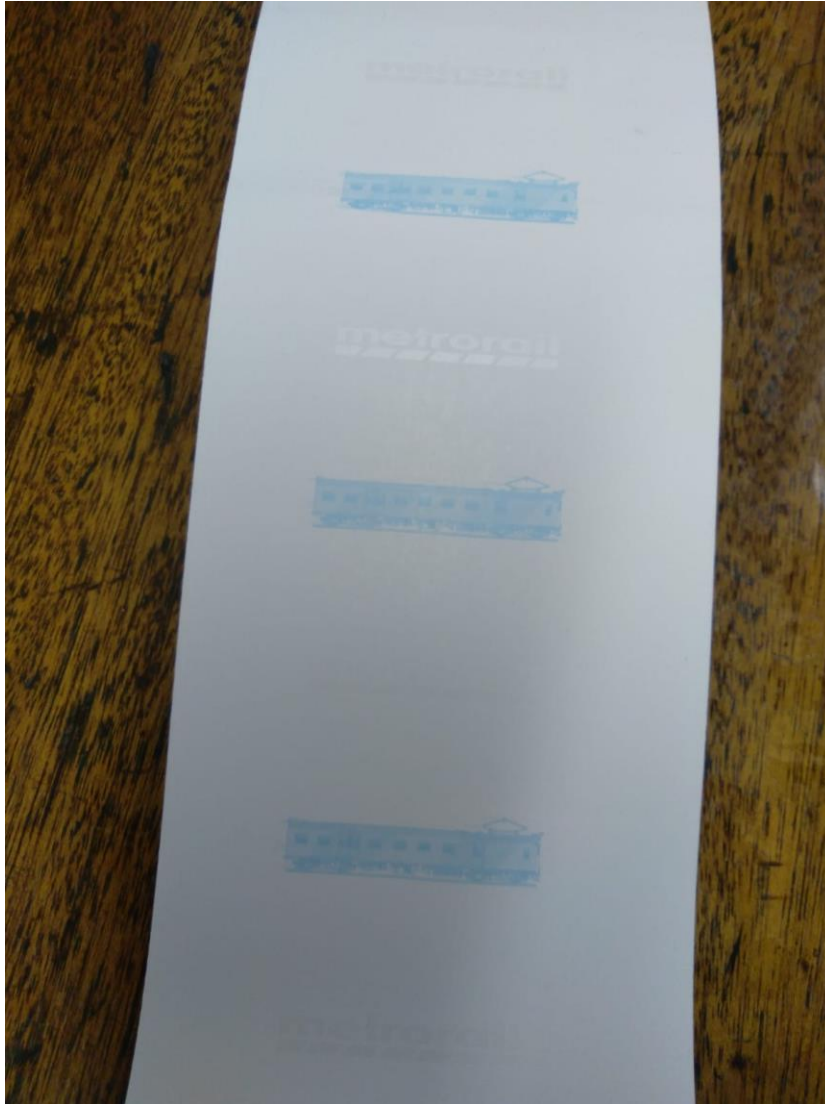
The printing of the regional name and roll numbers shall consist of alpha and numeric digits at a font size of 7 or 8 (letter size). Regardless of the registration of cutting position with regards to the beginning of a regional name and roll number, at least one complete regional name and roll number shall be displayed on any ticket. Full details will be furnished to the successful tenderer.

6. Additional Security Features on Ticket Material

Tenders are requested to comment and quote separately on the following additional features per ITix and PTIM rolls:

- Fixed offset metallic inks;

- Coin reactive links;
- Fixed Offset Fluorescent inks; and
- Copy protection via Oyster Cover ink.



End of specification

7 rolls will be supplied to the end user for verification and quality control before the order is done.

The end user will first supply a signed document that the rolls is correct.