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DENEL PMP

SPECIFICATION FOR CARTON 7715

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APPROVAL PAGE

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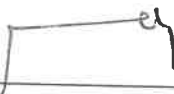
I Pretorius
Configuration Control


Signature

2023-02-07
Date

APPROVED BY

VW Kennedy
Product Manager


Signature

14/02/2023
Date

A Nel
Acceptance Authority


Signature

23/02/2023
Date

ORIGINAL SIGNED

AMENDMENT HISTORY

ISSUE	DETAILS	JOB NO.	DONE BY	DATE
9	Change material for the box.	E2/004/23SA	I.P. 	2023-02-07
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SPECIFICATION FOR CARTON 7715

1. **SCOPE**

- 1.1 This specification establishes the requirements for the manufacture and acceptance of carton 7715.

2. **APPLICABLE DOCUMENTS**

- 2.1 ISO 9001: Code of practice for Quality Management Systems.
2.2 3/13/2411/104: Drawing for carton 7715.

3. **REQUIREMENTS**3.1 **Carton definition**3.1.1 **Character**

The carton shall comply visually and dimensionally with the applicable drawing.

3.2 **Product characteristics**3.2.1 **Performance**3.2.1.1 **Weight loss**

The loss of weight of a carton shall not exceed 9% when dried at 103 - 105°C for two hours.

3.2.1.2 **Tarnishing**

The carton shall not tarnish the products packed therein. The carton shall be tested on the side treated with VCI as described in 4.2. Any tarnish on the covered disc other than that caused by the moisture (similar to the oxidation on the uncovered disc) is interpreted as originating in the carton and the cartons will be rejected.

3.2.2 **Physical characteristics**3.2.2.1 **Material**

Note: Only Virgin material shall be used and no recycled material will be allowed.
A single lined Sappi Kraft Pride or Brazilian Visy Kraft liner (Ref K337 Bx) board with a mass of 335 ± 15 grams per square metre or X-Box material with a mass of 249 ± 15 grams per square meter, covered on one side with an oil-based (over print varnish) or water-based varnish treated with a volatile corrosion inhibitor (VCI). The VCI must be Tolytriazole or Benzotriazole. The supplier shall ensure that the VCI barrier is on the inner side of the constructed carton. The VCI shall have a minimum concentration of 1% in the varnish used. After the VCI varnish has been applied to the cartons, the cartons shall under no circumstances be subjected to any source of heat that will lead to the evaporation of the VCI. The cartons shall be tested as described in the Test Method. The cartons shall be tested as described in the Test Method.

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SPECIFICATION FOR CARTON 7715**3.2.2.2 Colour and printing**

Not applicable.

3.2.2.3 Dimensions

In accordance with drawing number 3/13/2411/104

Note: The carton must be able to be folded on the purchaser's folding machine/s so that the side treated with VCI is on the inside and the onus rests with the supplier to satisfy him in this respect.

3.3 Workmanship

The material shall be free of any surface, internal or any other defects that will be detrimental to the final product.

3.4 Qualification inspection and samples

Only applicable if stated in the contract or order

4. QUALITY ASSURANCE PROVISIONS**4.1 Responsibility for inspection**

4.1.1 Unless otherwise specified in the contract or order, the supplier is responsible for the performance of all inspection requirements as specified herein.

4.1.2 Except as otherwise specified, the supplier may use his own or any other facilities suitable for the performance of the inspection requirements.

4.1.3 The purchaser or his representative reserves the right of inspection of Laboratory Certificates of raw materials and components used for the manufacture of the cartons.

4.1.4 The supplier shall be responsible for making available to the purchaser all facilities necessary, if required, for inspection of the cartons.

4.1.5 The supplier will be responsible for the implementation of the applicable quality management systems according to ISO 9001 to the appropriate quality of the product. The purchaser reserves the right to audit the supplier's production facilities at all times to ascertain whether quality requirements are being met.

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4.2 Test methods**4.2.1 Tarnishing test**

- Prepare a copper-zinc (70/30) alloy disc by scouring with grit 320 paper (using water). Ensure a homogeneous scoured surface, rinse with de-ionised water and dry with a clean paper towel. *Do not handle discs with bare hands.*
- Wrap the disc in carton material and staple.
- Clean a desiccator and fill with de-ionised water to a depth of 30mm.
- Place the carton-covered discs along with an uncovered disc in the desiccator. Ensure that all the cartons are hanging free without being in direct contact with the water.
- Keep the opening in the lid uncovered and place the lid firmly in the base.
- Place the desiccator with the cartons in a drying oven for 16 hours at $72 \pm 2^{\circ}\text{C}$.
- After 16 hours remove the cartons and let it cool down
- Remove the discs from the carton wrapping and compare to the uncovered disc. Only slight oxidation (tarnishing) is allowed on the uncovered disc.
- Any tarnish on the covered discs other than that caused by the moisture (Similar to the oxidation on the uncovered disc) is interpreted as originating in the carton and the cartons will be rejected.

4.3 Quality conformance inspections**4.3.1 Lot information**

A lot shall consist of one or more batches of cartons produced by one manufacturer in accordance with the same specifications in one continuous set of operating conditions. The supplier shall ensure that all deliveries to the end user are fully traceable by lot numbers and that identification records are supplied to the end user to match lot numbers with inspection records.

4.3.2 Acceptance/rejection

Any defect shall lead to rejection of the lot, subject to negotiations between the supplier and the acceptance authority.

- Incorrect dimensions
- Incorrect packaging
- Incorrect material
- Mixed lots
- Excessive weight loss
- Tarnishing

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5. PREPARATION FOR DELIVERY**5.1 Preservation and packing**

The cartons shall be supplied in sound, dry, clean, air tight containers with the least amount of air entrapment. The quantities of cartons in each container shall be negotiated between the supplier and purchaser. Any deviations from these methods of packing, as well as the inclusion of any foreign matter or impurities in any of the containers, shall render the whole consignment liable to rejection.

5.2 Package marking

All containers are to be legibly and durably marked with any markings called for by statutory requirements and in addition with the following details:

- Description as in the title of this specification.
- Distinctive lot numbers.
- Order number and carton code.
- Quantity.
- Date of manufacture.

5.3 Documentation for delivery

The following documents must be forwarded with each consignment:

- 5.3.1** A certificate of conformance stating that the material submitted is correct and conforms to this specification. This certificate of conformance shall be attested by a designated representative of the supplier and shall provide the results obtained in respect of all inspections, tests and analysis performed on the final lot. The following cartons must appear on the certificate of conformance:

- Specification/drawing number.
- Material used.
- VCI treated.
- Order number.
- Delivery note number.
- Quantity.

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- 5.3.2** The Acceptance Authority reserves the right to inspect Analysis Certificates as well as in-house Laboratory Certificates of raw materials used during the manufacture of the applicable lot of cartons.

- 5.3.3** The Acceptance Authority reserves the right to inspect all analysis, control charts or other records kept during the manufacture of a specific lot of cartons, at any reasonable time.

6. NOTES

- 6.1** If the supplier of the cartons is not the original manufacturer, the full name and address of the original manufacturer must be supplied in writing with submission of the tender.