

# UNHCR Environmentally Friendly Procurement

## HEAVY DUTY PLASTIC BUCKET 14 L, RECYCLED

Providing material assistance to forcibly displaced populations is fundamental to UNHCR's protection mandate. In an emergency, buckets are one of the main essential items that UNHCR distributes as part of the assistance to the affected populations. The food-grade bucket is primarily used in emergencies as a container that offers a solution for water storage protected from contamination. UNHCR procures an average of 1 million buckets annually.<sup>1</sup>

### END USERS

UNHCR is mandated to protect and assist refugees, forcibly displaced communities, and stateless people. The product with this specification will be used by the people we serve, primarily in emergencies. The end users include people of all ages ranging from infants to older persons, persons with disabilities and pregnant women. Therefore, the supplier needs to understand and study the needs of a forcibly displaced population, especially in emergencies, to ensure an innovative and sustainable product design that is user centered.

### SUSTAINABLE SUPPLY CHAIN

For UNHCR to fulfil its mandate, it is imperative to minimize the environmental footprint of humanitarian assistance. Our approach to a sustainable end-to-end supply chain includes planning, sourcing, material, manufacturing processes, procurement, delivery, and lifecycle management of goods.

A holistic assessment of sustainable products includes, but is not limited to, the following criteria:

- The product design follows Universal Design principles that is user-friendly and accessible.<sup>2</sup>
- Manufacturing processes take into consideration the protection of the environment and respect for social standards.<sup>3</sup>
- Products are made from sustainable material and post-consumer waste.<sup>4</sup>
- Packaging is made from sustainable material, ideally with a second-life purpose.
- All unnecessary single-use plastic is removed.<sup>5</sup>
- Packaging, palletizing, and load ability of transport units are optimized.
- Products are recyclable.
- A life cycle analysis, including GHG emission factors, is performed for all products.
- The geographical distribution of the supplier base is diversified to ensure proximity of product delivery.

### PREFERENCE

Preference will be given to a product that is most user-friendly and has the highest overall sustainability elements that satisfy technical specifications. The suppliers offering products that meet these criteria will be evaluated based on the sustainability criteria established in the tendering process. Please see the Sustainability Procurement Indicators from the United Nations Global Market that we comply with.

1 <https://www.unhcr.org/54aeb4f39.pdf>

2 <https://universaldesign.ie/Technology-ICT/Universal-Design-for-ICT/User-Testing/>

3 Suppliers to demonstrate the application of ISO 14001:2015: Environmental managing systems, ISO 9001:2015: Quality Management systems, ISO 26000: Guidance on social responsibility

4 Pre-consumer waste is encouraged to be used while cannot be considered part of the target emission reduction

5 <https://www.unep.org/resources/report/single-use-plastics-roadmap-sustainability>

Item Application Sample



Technical Specification

<b>Design:</b>	<p>A 14L heavy-duty bucket, stackable and round, with a handle, a clipped cover and a cap that is attached to the lid. It should be easy to lift, fill up and pour from, have a good grip with no sharp edges, and be comfortable to carry for the end user. A user-friendly and accessible product design that follows <a href="#">Universal Design Principles</a>.</p> <p>Note that other design solutions can be considered if they comply with the quality requirement and offer a solution for water storage that sustainably protects from pollution.</p>
<b>Capacity:</b>	Minimum 14L, ISO volume closest to minimum 14L could be considered.
<b>Weight:</b>	<p>Minimum weight for the bucket is 600g if polyethylene (PE) or 550g if polypropylene (PP). Minimum weight for the lid is 150g if PE or 14g if PP. Weight of handle: new, to determine, durable light options welcome.</p>
<b>Material:</b>	<p>The bucket and the lid are made of a mixture of virgin and recycled (pre-consumer and/or post-consumer) food-grade plastic (for example, High-Density Polyethylene (HDPE), Low-Density Polyethylene (LDPE), Polypropylene (PP)), UV-treated plastic, which is safe for food and water storage.</p> <p>The target minimum of food-grade recycled plastic in the product is 30%, but a higher and lower percentage will also be considered. Preference will be given to the product that contains the highest amount of food-grade recycled plastic while satisfying the quality and usability requirements of the product.</p> <p>The plastic part of the handle does not need to be food-grade, however it should ideally be 100% recycled plastic and no colorants added.</p>
<b>Lid:</b>	A tight-fitting stackable lid of the same material as the bucket with an attached push-on cap. Easy to fill up and pour with the outlet of 50mm +/- 10% and clip cap on the lid. The bucket can be filled through the cap. The lid can be taken off for periodic cleaning so cannot be too tight.
<b>Handle:</b>	A strong handle with an ergonomic grip, e.g., a strong metal handle with a recycled plastic moulded grip fixed to the bucket, brings comfort to the user's hand. Alternative, innovative solutions are welcome.
<b>Dimensions:</b>	<p>Height is 300mm +/- 15mm Top external diameter is 300mm +/-15mm Bottom external diameter is 240mm +/-12mm If ISO volume standard bucket is offered, dimensions close to these could be considered.</p>
<b>Colours:</b>	Considering that sustainable materials are accepted, the product's colour can be natural. The bucket itself needs to be light enough for the user to identify the level of liquid inside it visually. No black, red or white. No military/camouflaged colours. No drawings. No additional colour pigmentations and design elements.
<b>Quality of each part:</b>	Strong and durable quality for a long-life span in tough conditions. Food-safe, odourless and neutral in taste.
<b>Reinforcement:</b>	The top of the bucket is reinforced to prevent ovaling and other deformation. The walls shall meet the bottom of the bucket with a curved surface to prevent dirt accumulation and facilitate cleaning. The bottom must be smooth and spike-free for improved comfort when carried on the head, with a ribbed bottom to prevent damages.
<b>Stackability:</b>	An opening in the lid of at least 50 mm diameter, with a matching screw cap for filling/discharge. The screw cap should be held with a retaining strap. No leakage should occur when filled up to the top with water and after 10 minutes in an upside-down position.
<b>UV Test:</b>	Passing a UV test (e.g. ASTM D4329 – 13)
<b>Compliance:</b>	Bucket and all its supplementary parts should not contain toxic elements according to EN 1186-3-9 standard.
<b>Shelf life:</b>	The life span of the bucket should be a minimum of 2 years.

### Packaging

**Primary packaging:** Reducing plastic waste in the environment: Individual bucket should have no packaging (zero plastic).

#### Secondary packaging:

- An optimal number of products should be packed in export-quality secondary packaging, preferably using sustainable material and its natural colour - plastic packaging is forbidden. In case cardboard is used, it must be unbleached and unlaminated. Inks must be non-toxic and ecologically friendly. Innovative solutions are welcome.
- Filled secondary packaging must resist without any damage to a weight or a pressure of 230 kg applied on a strong, rigid board on top of the box (equivalent weight to 6m high stacking).
- Quantity per secondary packaging: currently 20 pcs; the alternative optimal amount will be considered.
- The packing must guaranty that the buckets will not get stuck together.
- Preference will be given to innovative packaging that does not harm the product, ideally with a second-life purpose, and minimizes packaging waste.
- Ensure that user-friendliness and safety aspects of handling persons are considered in the packaging design.

**Tertiary Packaging:** Secondary packaging might be packed on a pallet; in this case, they need to be wrapped in a water-tight material, preferably made of or containing sustainable material, e.g recycled plastic or reusable material (such as tarpaulins), or other alternatives. Packaging needs to ensure that products are protected from any damage including water and moisture. Innovative sustainable solutions are welcomed. Avoid compostable plastics for packaging and increase recycled content wherever possible.

### Optimal Shipping / Container Information

What is the maximum number of items you can fit into a transport unit?

Please include the container layout plan.

20' DC container (without pallets)

40' DC container (without pallets)

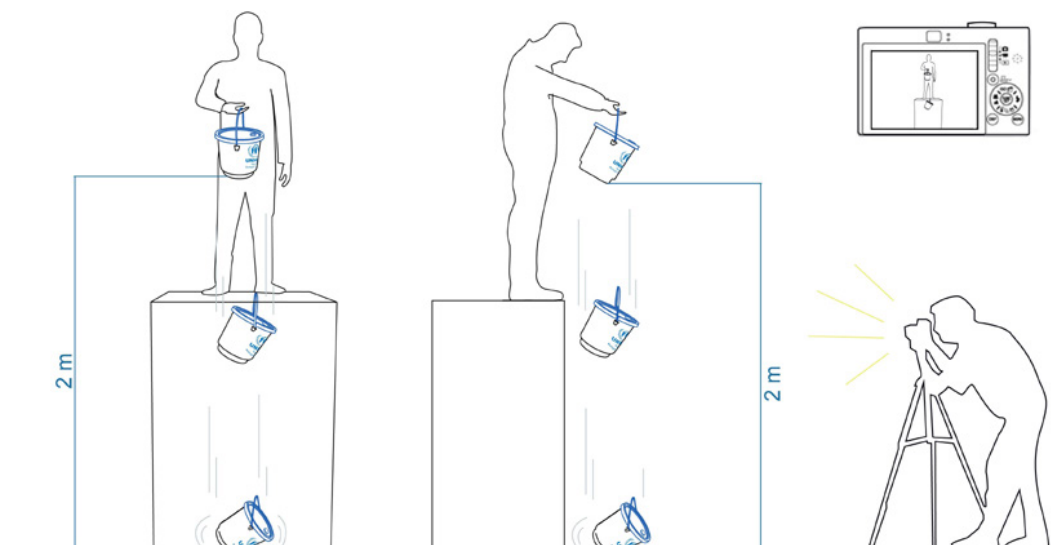
40' HC container (without pallets)

20' DC container (with pallets)

40' DC container (with pallets)

40' HC container (with pallets)

The final number of the transport unit and maximum height of loaded pallet, if palletized, will be defined on the purchase order. The UNHCR pallet size is 177 X 75 cm, however, other standardized practices (e.g. EURO pallets) are also acceptable. Suppliers are requested to indicate their pallet size and provide solutions that improve and optimize the loading capacity.



**Drop test:** The bucket filled with 14L water or 2cm below the top and closed with the lid must resist without damage to 2 consecutive vertical drops from 2m high from the bucket bottom to the smooth flat concrete floor. Please note, that for the drop test, the tap shall not be installed into a bucket. Requirement: the bucket should not break. Remark: the lid opening and deformation without breakage will not be considered a fail.

### Manufactured Marking

The product should include the following data:

- manufacturer identification moulded on the bucket
- manufacturing month and year moulded on the bucket
- unique reference batch number
- material composition (type of material(s)) and the ratio of each material in the product
- certified sustainability claim/eco-labelling
- information related to the reuse/recyclability of the item

No company logo should be included with the manufacturer's marking. The final marking on the bucket and design needs to be approved by UNHCR before production.

### Marking on the secondary packaging

No logo of the supplier is allowed. The marking must remain readable and well fixed on the secondary packaging after a minimum of 10 handlings. Other markings as specified in the contract/purchase order. The UNHCR visibility logo will need to be applied on all sides of the secondary packaging (excluding the bottom). For detailed information please refer to the section "Shipping Marks" on the relevant GDS PO.

### Marking techniques

- Laser engraving
- Printing with water-based ink
- Printing on sustainable sticky tapes
- No harmful ink/colouring should be used

### Testing

UNHCR may carry out tests as its own discretion to verify the quality and performance of the item. Below is a list of tests that are not exhaustive:

**Lid:** The lid should be able to close tight but easy to open and close. For testing the lid's performance, the lid must resist one fall on the side, containing the maximum volume of water. The bucket full of water is placed on the floor, and it is pushed until it falls on the side. The lid does not come out. The cap does not open.

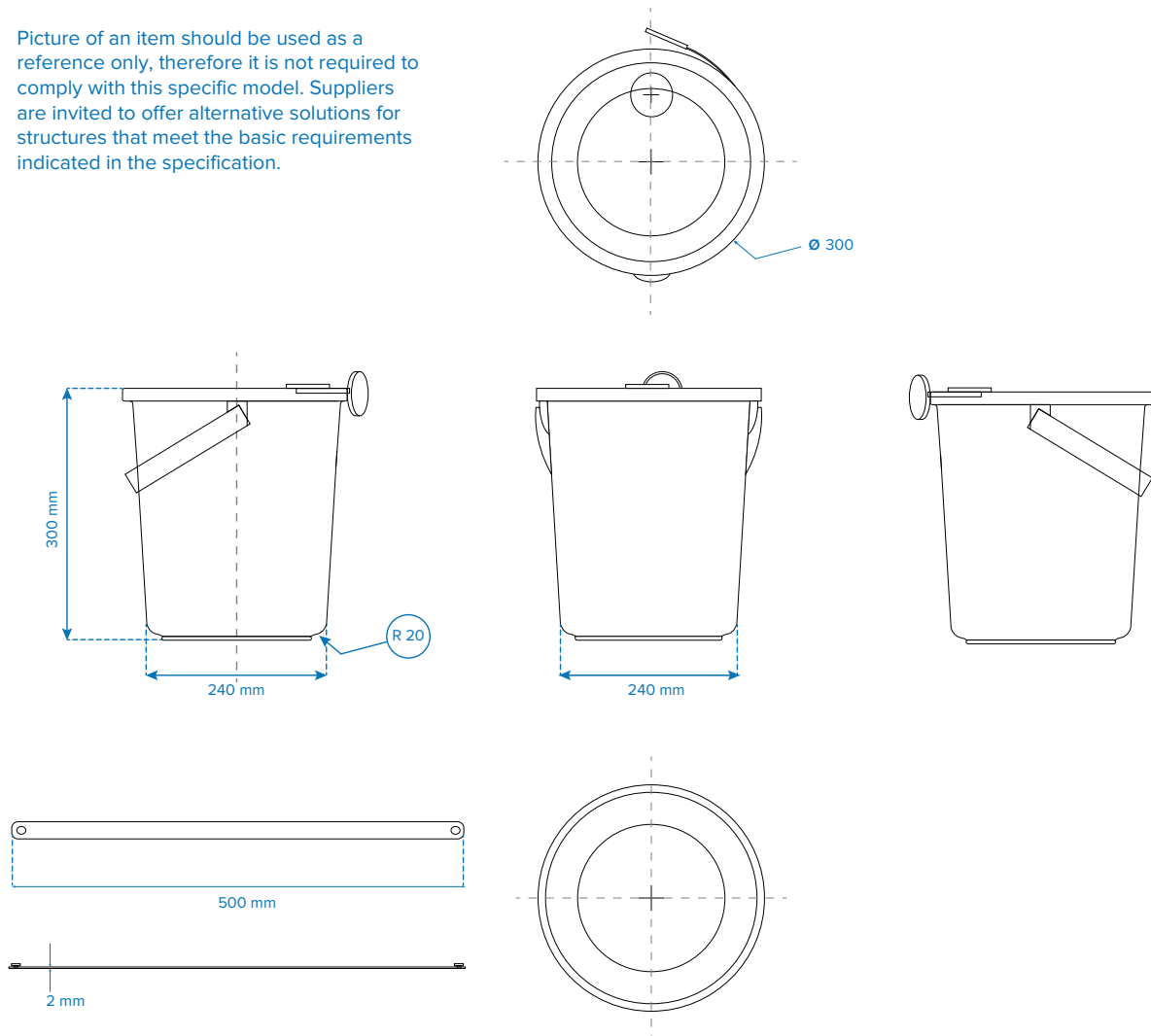
**Durability:** stimulation of the item to verify the ability to resist and remain functional.

**Handle:** The handle must also resist 28kg traction in a normal usage position. Other tests but not limited to: repeated load test, side load test, dynamic load test and twist test.

**Flexibility test:** The bucket must return to its original shape without damage after applying pressure on the two sides of the top rim to make them touch one another in the middle.

Graphic Reference

Picture of an item should be used as a reference only, therefore it is not required to comply with this specific model. Suppliers are invited to offer alternative solutions for structures that meet the basic requirements indicated in the specification.



Detailed View

Capacity: 14 L

Dimensions, ( $\pm 5\%$ ):

Height: 300mm +/- 15mm

Top external diameter: 300mm +/-15mm

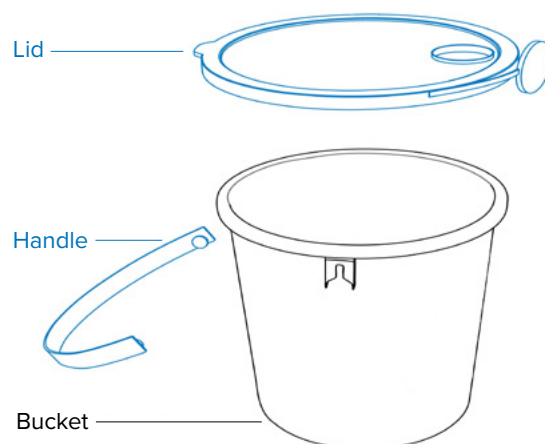
Bottom external diameter: 240mm +/-12mm If ISO volume standard bucket is offered, dimensions close to these could be considered.

Minimum Weight:

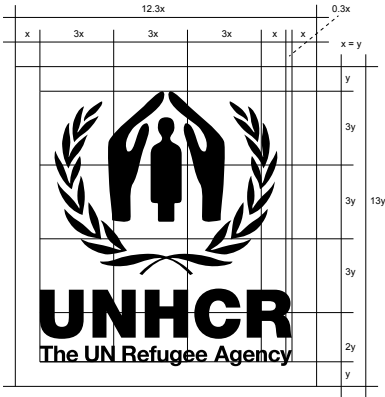
Bucket: 600g if PE or 550g if PP

Lid: 150g if PE or 14g if PP

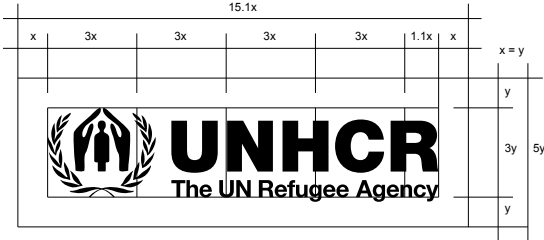
Handle: new, to determine, durable light options welcome.



**UNHCR Logo Application Reference**



UNHCR Vertical Visibility logo



UNHCR Horizontal Visibility logo

**Logo and Shipping Markings on Plastic Bucket Boxes**

The front and back of the Sea/Air Transport Carton (the largest surface sides of the carton) should include only the UNHCR visibility vertical logo. The 2 other opposite sides should include the UNHCR visibility vertical logo with the shipping marking information area (below the logo). The top side should include the horizontal visibility logo in one of the closures and the content list in the other closure.

**Opened Box**



**Logo and Shipping Markings Application Reference**



**A. Application of the logo and markings for the front and back sides of the Sea/Air Transport Carton:**

In the front and the back sides of the Sea/Air Transport Carton, the vertical logo is to be placed centrally, occupying a minimum of 60% surface space and without any image distortions as per (graphic 1.1).

In case of a rectangular shape carton, the UNHCR horizontal visibility logo should be used instead of the UNHCR vertical visibility logo, having a better usage of the surface space (graphic 1.2).



Graphic 1.1



Graphic 1.2

**Technical Drawing**



**Logo and Shipping Markings Application Reference**

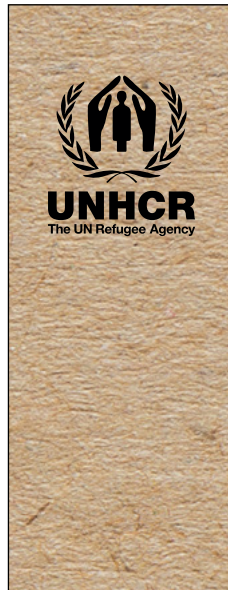
**B. Application of the logo in the 2 other opposite sides of the Sea/Air Transport Carton:**

In the 2 other opposite sides of the Sea/Air Transport Carton, the vertical logo and shipping marking information are to be placed centrally, occupying a minimum of 60% surface space (45% for the UNHCR visibility logo and 15% for the shipping markings) and without any image distortions, as per (graphic 2.1).

In case of a rectangular shape carton, the UNHCR horizontal visibility logo should be used instead of the UNHCR vertical visibility logo, having a better usage of the surface space (graphic 2.2)

The information to be placed in the shipping marking box is as follows:

**Important:** In order to respect the integrity of the logo, the shipping marking information area should be visually separated from the lower part of the visibility logo and framed with the same indelible ink as the details information as per the graphic 2.1.



Graphic 2.1



Graphic 2.2

**Technical Drawing**



**Logo and Shipping Markings Application Reference**

C. Application of the logo and marking in the top side of the Sea/Air Transport Carton:

In the top side of the Sea/Air Transport Carton, the UNHCR horizontal logo is to be placed centrally in one of the closures, occupying a minimum of 60% surface space and without any image distortions.



Graphic 3

**Technical Drawing**

