

# UNHCR Environmentally Friendly Procurement

## DOCUMENT VERSION

This is the third version of the specification of this item with enhanced sustainability attributes, representing UNHCR's ongoing commitment to advancing the environmental, technical, social, and economic sustainability of relief items, as of **November 13, 2024**.

## JERRYCAN, SEMI-COLLAPSIBLE, 10L, RECYCLED

Providing material assistance to forcefully displaced populations is fundamental to UNHCR's protection mandate. In an emergency, jerrycans are one of the Core Relief Items that UNHCR distributes as part of the assistance to the affected populations. The food-grade jerrycan is primarily used in emergencies if the household water storage options are lost or destroyed; water supplies are intermittent, and increased storage is required.

## END USERS

UNHCR is mandated to protect and assist refugees, internally displaced, and stateless people. The product with this specification will be used by the people we protect, 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 fulfill 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 are user-friendly and accessible.
- Manufacturing processes take into consideration the protection of the environment and respect for social standards<sup>1</sup>.
- Products are made from sustainable materials and post-consumer-recycled (PCR) materials<sup>2</sup>.
- Packaging is made from sustainable material, ideally with a second-life purpose.
- All unnecessary single-use plastic is removed<sup>3</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 the 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. Please see the Sustainability Procurement Indicators from the United Nations Global Market that we comply with.

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

2 In the absence of PCR materials, pre-consumer (post-industrial) recycled materials are acceptable while cannot be considered part of the target emission reduction.

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

**Item Application Sample**



**Technical Specifications**

**Design:** The semi-collapsible 10L jerrycan should be easy to fill up and pour from, comfortable to carry for the end user and have no sharp edges. The jerrycan must stand by itself, even when filled with less than 1/4 of its maximum volume. A user-friendly and accessible product design that follows Universal Design principles.

Note that other design solutions can be considered if they comply with the quality requirements and offer a solution to collect, carry and sustainably store drinking water.

**Capacity:** 10 L

**Weight:** minimum 180g

**Material:** Made of a mixture of virgin and recycled (pre-consumer and/or post-consumer) food-grade plastic (i.e. Low-Density Polyethylene, High-Density Polyethylene, Polypropylene), which is safe for food and water storage.

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 products.

**Compliance:** Suitable for drinking water storage, tested and approved by recognized and specialized laboratories. The food-grade material should not contain toxic elements according to EN 1186 & EN 13130 and shall comply with Regulation (EU) 10/2011 and its amendments or equivalent international standards for food-contact materials.

**Colours:** Jerrycan must be semi-transparent to enable identification of the level of liquid inside it visually.

**Built:** One built-in carrying handle has minimum internal dimensions of 9 cm long and 3 cm high, with no sharp edges. Alternative user-friendly options are also welcome.

**Handle:** The handle must resist the traction test when filled up to the top with water for 10 minutes. Handles should not break or crack.

**Inlet interior diameter and the Cap:** An opening of at least 50 mm diameter, with a matching screw cap for filling/discharge. The screw cap should be held with a retaining strap. The retaining strap should be long enough to allow screwing of the cap. The opening should be round, without deformation that can compromise leakage. No leakage should occur when filled up to the top with water and after 10 minutes in an upside-down position.

**Shelf life:** Minimum 3 years when kept in original packaging at a temperature interval from -10°C to 50°C. Minimum 6 months of use under tropical conditions.

**Storing condition:** Semi-collapsible jerrycans should be stored in a dry area and shielded from the sun. Preferable storage temperature is from -10°C to 50°C.

**Packaging**

**Primary packaging:** Reducing plastic waste in the environment: Each individual jerrycan 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 color - plastic packaging is forbidden. In case a cardboard is used, it must be unbleached and unlaminated. Ink 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 50 pcs; alternative optimal amounts will be considered.
- Preference will be given to innovative packaging that does not harm the product, ideally with a second-life purpose, and minimizes packaging waste.
- The user-friendliness and safety aspects of handling persons should be considered in the packaging design.

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

All plastic packaging materials – wrapping films, straps (if any), etc. – must contain a proper recycling code to specify the type of plastic used. Use recycling codes as per ASTM International Resin Identification Coding System (RIC).

CRI (UNHCR) Pallets - Dimensions (L x W x H): 1150 mm (+1 cm / -3 cm tolerance) x 770 mm (+/- 1cm tolerance) x 144 mm. One way pallet, Heat treatment according to ISPM 15, the relevant acceptable standard is: Grade A Stringer Pallets or 9 Block Pallets. For more information, please refer to the Pallet guidelines.

### 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 transport units and the maximum height of loaded pallets, if palletized, will be specified in the purchase order.

### Manufacturer's Marking

The marks on the jerrycan should include the following information:

- Permanent ID molded on the jerrycan, including manufacturer's ID and batch ID.
- Manufacturing month and year molded on the jerrycan.
- Certified sustainability claim/eco-labelling
- Recycling identification symbol and code (as per ASTM International Resin Identification Coding System (RIC)).

**Supplier's and manufacturer's logos are prohibited. The final marking on the jerrycan and design needs to be approved by UNHCR before production.**

### Marking on the Secondary Packaging

Supplier's and manufacturer's logos are prohibited. Shipping marks on the secondary packaging shall be printed in non-toxic black indelible ink. They must remain readable, well-fixed, and clearly legible after a minimum of ten handlings. In case shipping marks are printed separately on labels instead of being directly printed on the secondary packaging, the labels shall neither be plastic nor laminated and the marks should still be printed in black indelible ink. The marks shall include the specified information as detailed in the "Shipping Marks" section of the relevant Goods PO. Each box made of recycled paper must have a symbol about its recycled nature and the possibility to be recycled (see the figure under Logo and Shipping Marks on Individual Boxes).

### Marking on the Tertiary Packaging

Shipping marks on the tertiary packaging shall be placed on all four sides of the pallet for easy identification after stacking. It shall include the following information:

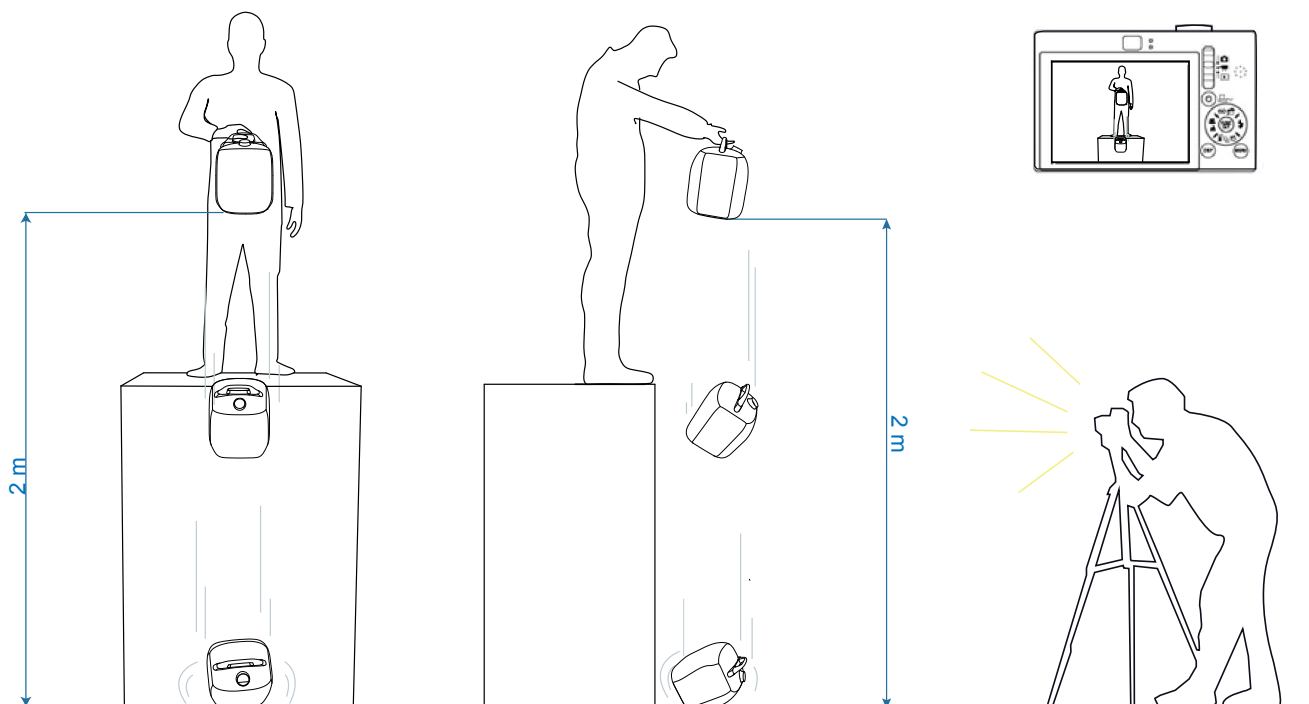
- Number of packing units per pallet;
- Consecutive numbers shown over the total number of pallets: i.e. 1/60, 2/60, ..., 60/60.

### Marking Techniques

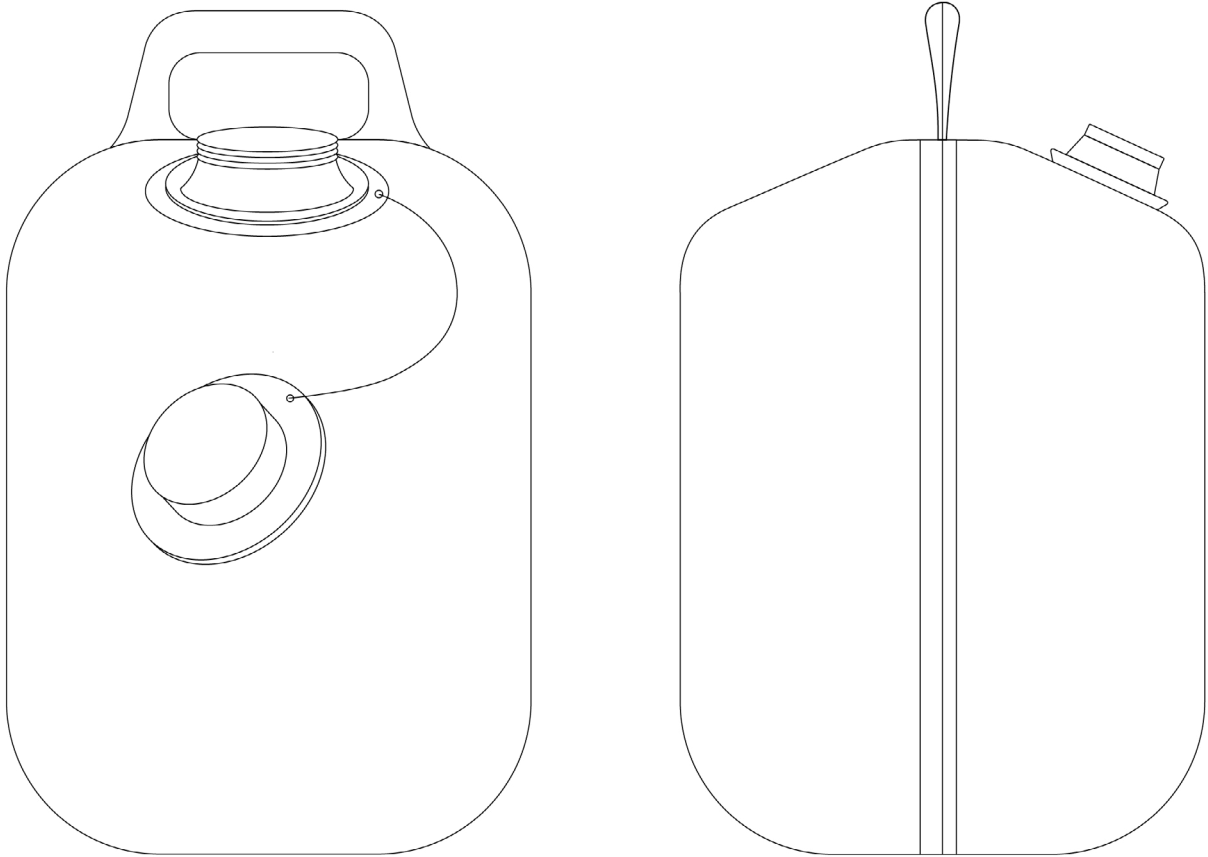
- Laser engraving
- Printing with water-based ink
- Printing on sustainable sticky tapes
- Ink/colouring must be non toxic and ecologically friendly

### Product Performance and Quality Control

**Impact Resistance / Drop Test:** The collapsible jerrycan must be impact resistant on a smooth concrete surface when filled up to the top with water. The complete drop test consists of 10 consecutive drops from a height of 2m. The jerrycan must be elevated so that the lowest point is 2m from the ground. The drop test will be done from different angles (bottom-up, bottom-down, side-down). The test result is expressed as a product ranking according to the number of drops passed without leakage. To be accepted, the jerrycan must resist a minimum of 3 drops.



Graphic Reference

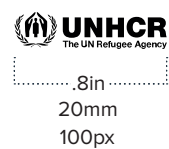


UNHCR Logo Application Reference

Horizontal logo



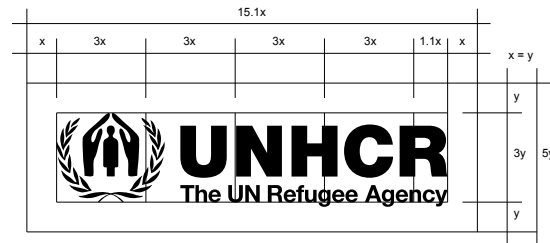
Minimum size



**UNHCR Logo Application Reference**



UNHCR Vertical Visibility logo



UNHCR Horizontal Visibility logo

**Logo and Shipping Marks on Jerrycan Boxes**

The front and back of the Transport Carton (the largest surface sides of the carton) should include only the UNHCR visibility vertical logo. The two other opposite sides should include the UNHCR visibility vertical logo with the shipping marks area (below the logo). The top side should include the horizontal visibility logo on one of the closures and the content list on the other closure.

**Opened Box**





**Logo and Shipping Marks Application Reference**



**A. Application of the logo and marks for the front and back sides of the Transport Carton:**

On the front and the back sides of the Transport Carton, the vertical logo is to be placed centrally, occupying a minimum of 60% surface space 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 Marks Application Reference

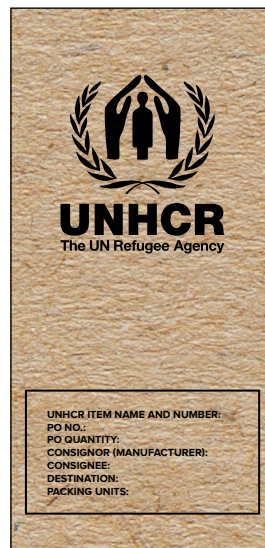
#### B. Application of the logo on the two other opposite sides of the Transport Carton:

On the two other opposite sides of the Transport Carton, the vertical logo and shipping marks are to be placed centrally, occupying a minimum of 60% surface space (45% for the UNHCR visibility logo and 15% for the shipping marks) 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 shipping marks to be placed on the box is typically as follows:

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



Graphic 2.1



Graphic 2.2

### Technical Drawing





**Logo and Shipping Marks Application Reference**

**C. Application of the logo and marks on the top side of the Transport Carton:**

On the top side of the Transport Carton, the UNHCR horizontal logo is to be placed centrally on one of the closures, occupying a minimum of 60% surface space without any image distortions.



Graphic 3

**Technical Drawing**

