

# UNHCR Environmentally Friendly Procurement

## DOCUMENT VERSION

This is the second version 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 **February 14, 2024**.

## KITCHEN SET

Providing material assistance to forcibly displaced populations is fundamental to UNHCR's protection mandate. In an emergency, kitchen sets are one of the main essential items that UNHCR distributes as part of the assistance to the affected populations. The kitchen set contains cooking and serving utensils suitable for a family of 5 people.

## 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 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 forcibly displaced populations, 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<sup>1</sup>.
- Manufacturing processes take into consideration the protection of the environment and respect for social standards<sup>2</sup>.
- Products are made from sustainable materials, and through sustainable mechanisms.
- 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 <https://universaldesign.ie/what-is-universal-design/the-7-principles/>

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

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

Item Application Sample



Note: The above images are for reference purposes only.



General Information and Description

The kitchen set consists of cooking and serving utensils suitable for a family of 5 people. All the items should be made of stainless steel in line with minimum quality standards included in this specification.

Kitchen Set Composition

Each kitchen set includes the following items:

- 1 x 7-litre cooking pot;
- 1 x 2.5-litre frying pan, which is used as a lid for 7-litre cooking pot;
- 1 x detachable handle for the 2.5-litre frying pan;
- 1 x 5-litre cooking pot with a lid;
- 5 x 1-litre bowls;
- 5 x 0.75-litre plates;
- 5 x cups;
- 5 x tablespoons;
- 5 x table forks;
- 5 x table knives;
- 1 x kitchen knife;
- 2 x serving spoons;
- 1 x serving ladle;
- 1 x scouring pad.

Design of the Items

Manufacturers and suppliers are invited to provide items with designs that improve the performance of kitchen sets and lead to the most compact packing of kitchen sets.

Estimated Weight and Volume

Estimated gross weight: Approximately 6.8 kg  
Estimated gross volume: Approximately 0.015 m<sup>3</sup>

Expected Life Span and Shelf Life

Expected shelf life: minimum 10 years.  
The cardboard packaging has a shelf life of 4 years.  
Expected lifespan: minimum 2 years

Material Specifications

**Material:** Stainless steel. Preferably green steel<sup>4</sup>.

<sup>4</sup> <https://greensteelworld.com/>

Minimum quality standards for the material:

All the items of the kitchen sets should be made of stainless steel. Two types of stainless steel are allowed:

- Stainless steel type 1.4016, equivalent to American grade 430 (according to ISO 15510:2014),
- Stainless steel type 1.4301, equivalent to American grade 304 (according to ISO 15510:2014).

Chemical composition:

Chemical composition of stainless steel as per EN 10088-1.

Acceptability limits:

- Minimum chromium content: 16 %
- Possible added elements: Ta, Nb, Zr, Mo, Ti, Al, Cu with the following maximum contents:
  - 1 p 100 for Ta, Nb, Zr
  - 4 p 100 for Mo, Ti, Al, Cu

Food grade requirement:

Stainless steel which is used to produce kitchen sets should be suitable for being in contact with foodstuffs. Food grade to be certified in conformity with EU regulations No. 1935/2004 or equivalent, and with Information Notice No. 2004-64. Suitability of materials to be in contact with foodstuffs.

Radiative content:

The manufacturer of the kitchen set must ensure that if the raw material for the kitchen sets used radioactive content it must be below the values provided in tables 1 and 2 of the IAEA Safety Standards Series Safety Guide RS-G-1.7 "APPLICATION OF THE CONCEPTS OF EXCLUSION, EXEMPTION AND CLEARANCE".

The supplier must certify that the items manufactured were checked for radiation prior to shipment and were found within the allowed level of radioactivity. A certificate will have to be issued by the supplier.

Finishing:

All the items in the kitchen set must be washed and polished and should not contain any residuals or dust, and must be clean, including cutlery. **Surface finish:** maximum RA 0.8 micrometer measured according to ISO 4287.

**Exemplary (reference) items of the kitchen sets**

The picture and size of each 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 and stacking that meet the basic requirements indicated in the specification, while minimizing the volume and maximizing the durability and performance of the items.

**1 x 7-litre cooking pot:**

**Material:** stainless steel.

**Inner volume:** minimum 7 litres

**Internal diameter:** minimum 25 cm, maximum 28 cm

**Thickness:** minimum 0.8 mm in the center of the bottom; and minimum 0.6 mm at 20 mm from the top of the wall.

**Handles:** 2 stainless steel handles, attached with strong rivets, rivets must not leak, bent upward to allow a hanging bar of 10 mm to pass through; handles must resist 20 kg load in the normal usage position.

**Lid:** the 2.5-litre frying pan should be designed to fit properly into the 7-litre cooking pot.



**1 x 2.5-litre frying pan (used as a lid for 7-litre cooking pot):**

**Material:** stainless steel.

**Inner volume:** minimum 2.5 litres.

**Internal diameter:** adapted to serve as a lid for the 7-litre cooking pot.

**Thickness:** minimum 0.8 mm in the center of the bottom.

**Handle:** 1 detachable stainless-steel handle; the handle must resist a 10 kg load in a normal usage position.



**Alternative design:** a frying pan can be designed as a kadai or a wok while maintaining a compact size. Innovative solutions within the package size constraints are encouraged.

**1 x 5-litre cooking pot with a lid:**

**Material:** stainless steel.

**Inner volume:** minimum 5 litres.

**Internal diameter:** minimum 22 cm, maximum 24.5 cm.

**Thickness:** minimum 0.8 mm in the center of the bottom; and minimum 0.6 mm at 20 mm from the top of the wall.

**Handles:** 2 stainless steel handles, attached with strong rivets, rivets must not leak, bent upward to allow a hanging bar of 10 mm to pass through; handles must resist 16 kg load in the normal usage position.

**Lid:** lid with a minimum thickness of 0.6 mm with a strong and durable handle/knob; the handle/knob of the lid must resist up to 2 kg load in the normal usage position.



**5 x 1-litre bowls:**

**Material:** stainless steel.

**Inner volume:** minimum 1 litre.

**Thickness:** minimum 0.5 mm in the center of the bottom.

**Height:** 5-7 cm.



**5 x 0.75-litre plates:**

**Material:** stainless steel.

**Inner volume:** minimum 0.75 litres.

**Thickness:** minimum 0.5 mm in the center of the bottom.

**Diameter:** 24-25 cm.



**1 x scouring pad:**

**Material:** stainless steel wire scouring pad.

**Weight:** minimum 20 g.



**Exemplary (reference) items of the kitchen sets**

**5 x 0.3-litre cup:**

**Material:** stainless steel.

**Inner volume:** minimum 0.3 litres.

**Thickness:** minimum 0.5 mm in the center of the bottom; and minimum 0.4 mm at 20 mm from the top of the wall.

**Handle:** securely welded. Handle to resist to 1 kg pulling. Alternative design options are encouraged to ensure stackability.

**Alternative design** options for a handle are encouraged to ensure the best grip and stackability. For example, an open-type handle with the same strength.



**5 x 10 ml tablespoons:**

**Material:** one-piece stainless steel.

**Volume:** minimum 10 ml.

**Length:** minimum 17 cm.

**Thickness:** minimum 1 mm in the center of the spoon.

**Resistance:** must resist a weight of 4 kg, applied at the middle of the item.



**5 x table forks:**

**Material:** one-piece stainless steel.

**Length:** minimum 17 cm.

**Thickness:** minimum 1.5 mm at the back of the tines.

**Resistance:** must resist a weight of 4 kg, applied at the middle of the item and at the distance between the point where the tines rest on their support and the point where the handle rest.



**5 x table knives:**

**Material:** one-piece stainless steel.

**Length:** minimum 17 cm.

**Thickness:** Back of the blade: minimum 1 mm, measured at the middle of the blade.

**Handle:** minimum 1.5 mm, measured at the middle of the handle.

**Resistance:** must resist a weight of 4 kg, applied at the middle of the item.



**1 x kitchen knife:**

**Material:** stainless steel.

**Length:** minimum 15 cm.

**Thickness:** Blade minimum 1.5 mm, measured at the middle of the blade.

**Handle:** wood or plastic with a triple rivet or strong durable fixation. The handle should be ergonomically designed to reduce strain on the hand and wrist, and accommodate the hand's natural grip, enhancing ease and comfort in using the knife.

**Resistance:** must resist a weight of 4 kg, applied at the middle of the item.



**2 x 35 ml serving spoons:**

**Material:** one-piece stainless steel.

**Volume:** minimum 35 ml.

**Length:** minimum 30 cm.

**Thickness:** minimum 1 mm in the center of the scoop.

**Resistance:** must resist a weight of 4 kg, applied at the middle of the item.



**1 x 100 ml serving ladle:**

**Material:** stainless steel.

**Volume:** minimum 100 ml.

**Length:** minimum 30 cm.

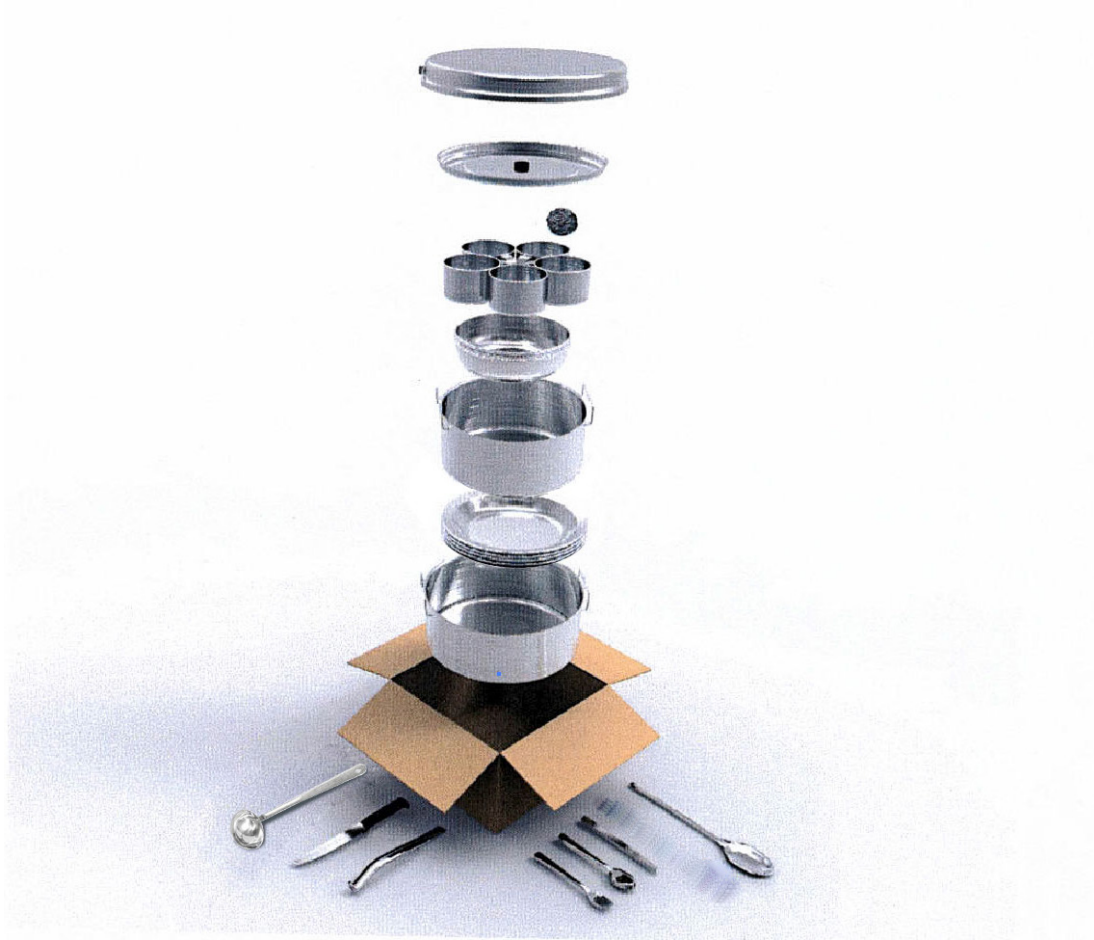
**Thickness:** minimum 1 mm in the center of the scoop.

**Handle:** securely welded, or in one piece. Handle to resist to 1 kg pulling. Flat handle with a hole.

**Resistance:** must resist a weight of 4 kg, applied at the middle of the item.



Exploded View



Reference Picture





## Primary packaging

Reducing plastic waste in the environment. Individual items should have no plastic packaging (zero plastic).

If necessary (for protection from scratches caused by friction), paper sheets (preferably recycled) with a thickness of 35 to 45 gsm can be placed between individual items.

## Secondary packaging

One kitchen set should be packed in an export-quality carton box, preferably made of recycled paper of its natural colour. Cardboard boxes must be unbleached and unlaminated. Inks must be non-toxic and ecologically friendly. Innovative solutions are welcome. Recycled symbol is required on the recycled cardboard boxes (for more details refer to the section “marks on the secondary packaging”). No straps are required for the boxes.

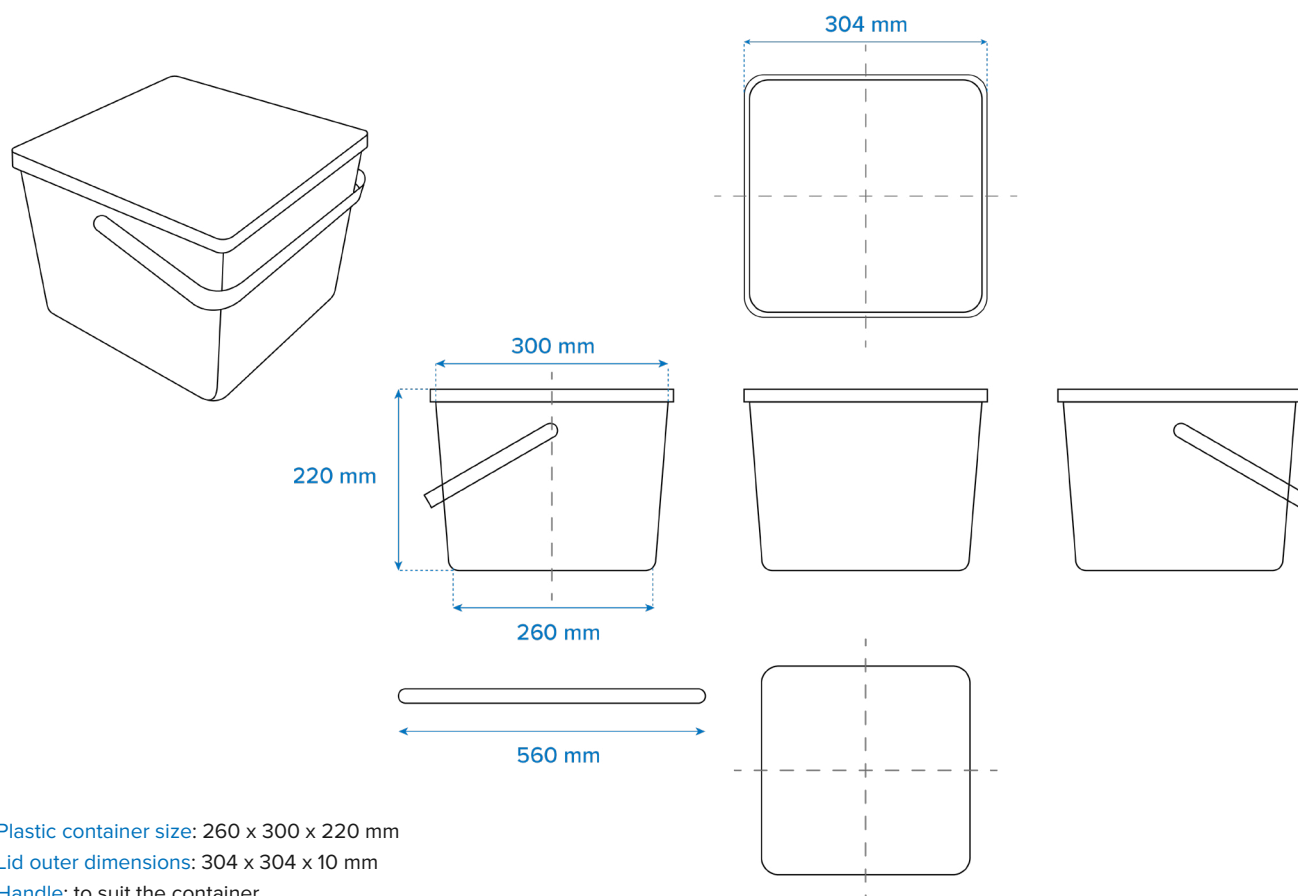
The sizes of the boxes should be optimized to maximize load ability in pallets and containers. A typical box dimensions for reference kitchen sets are 30 x 30 x 20 cm +/- 2%. However, depending on the kitchen set items design, other box dimensions can be also considered.

The exact dimensions of the boxes should be specified in PO.

- Filled secondary packaging must resist without any damage to a weight or a pressure of 140 kg applied on a strong, rigid board on top of the box (equivalent weight to 4 m high stacking).
- 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.

An alternative secondary packaging solution could be a food-grade plastic container (preferably containing recycled plastic), which has a cubic shape, with a lid (see the picture below).

## Graphic reference



- Plastic container size: 260 x 300 x 220 mm
- Lid outer dimensions: 304 x 304 x 10 mm
- Handle: to suit the container
- Water capacity: 17 litres +/- 200ml
- Raw material used: food-grade polypropylene copolymer (preferably containing recycled material)
- Weight of items: a) Lid: 50 g; b) Box: 600 g; c) Handle: 50 g
- Total weight of the box: 830 g +/- 5%
- Drop test: 1.5 m drop test passed

### 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.

All the plastic packaging materials -wrapping film, 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)<sup>5</sup>.

In order to avoid the slippage of pallets during transportation and possible damage of the carton boxes and their contents, the boxes should be piled to best fit the pallet, i.e. cartons should fit perpendicularly to the edge of the pallet and not hang over it or not reach it (edge of the pallet). The use of cardboard corner protectors (preferably recycled) is recommended to enhance the stability of the boxes on the pallet and to safeguard them from damage caused by the weight of stacked boxes.



In case labels with manufacturer's identification are applied to the tertiary packaging. They shall follow the same instructions under the section "Marking on the secondary packaging".

<sup>5</sup> [https://www.astm.org/d7611\\_d7611m-21.html](https://www.astm.org/d7611_d7611m-21.html)

### Optimal Shipping / Container Information

In preparing shipping, the maximum number of items that can fit into a transport unit must be considered. The container layout plan will be defined on the purchase order.

- 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.

### Manufacturer's marking

Suppliers are required to etch the following information on both the 5-litre and 7-litre pots:

- Produced for UNHCR by [supplier's and manufacturer's name]
- Unique reference batch number
- Manufacturing date (month and year)
- Type of material
- Information on the reuse/recyclability of the product

#### Food-grade plastic container

If using a food-grade plastic container as secondary packaging, the following information about the container itself should be embedded (moulded, or engraved, or printed, but not printed on sticky tapes) at the bottom of the container:

- Manufacturer identification
- Manufacturing date (month and year)
- Unique reference batch number
- Material composition detailing the type of material(s) and ratio of each material in the product
- Certified sustainability claim or eco-labelling
- Information on the reuse/recyclability of the product

Supplier logos are not allowed. The final marks and design shall 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.

Every 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 Mark 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 unit per pallet;

Consecutive numbers shown over the total number of pallets: i.e. 1/60, 2/60, ..., 60/60.

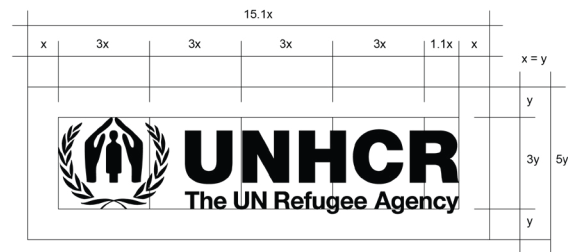
### Marking techniques

- Laser engraving
- Printing with water-based ink
- Printing on sustainable sticky tapes (only applicable on cardboard boxes)
- No harmful ink/colouring should be used

**UNHCR Logo Application Reference**



UNHCR Vertical Visibility logo



UNHCR Horizontal Visibility logo

**Logo and Shipping Marks on Kitchen Set Boxes**

The front and back of individual packaging (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 information 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.

Every box made of recycled paper must have a symbol about its recycled nature and the possibility to be recycled (see graphic 1):



Graphic 1: Recycled Paper Symbol





**Logo and Shipping Marks on Individual Boxes**

Logo and Shipping Marks for the Kitchen Set Packaging  
Box Size: L 30 x W 30 x H 20 cm +/- 2%



Graphic 2

**A. Application of the logo and marks for the front and back sides of the secondary packaging:**

On the front and back sides of the secondary packaging, the vertical logo must be placed centrally, occupying a minimum of 60% surface space without any image distortion (as per graphic 2). Visibility logo on one of the closures and the content list on the other closure. Every box made of recycled paper must have a symbol about its recycled nature and the possibility to be recycled (see graphic 1):

**Technical Drawing**







**Logo and Shipping Mark on Individual Boxes**

**B. Application of the logo in the two other opposite sides of the Secondary Packaging:**

On the two other opposite sides of Individual Packaging the vertical logo and shipping marks information are to be placed centrally, occupying a minimum of 60% surface space (45% for the UNHCR visibility logo and 15% for the shipping marks) and without any image distortions.

The information on the graphic design is for reference only. It shall include the specified information as detailed in the “Shipping Marks” section of the relevant Goods PO.

  <b>KITCHEN SET</b> <b>TYPE B</b> <b>STAINLESS STEEL</b> <b>ITEM # HHKS10004</b>	Produced for  <b>UNHCR</b> The UN Refugee Agency by Supplier and Factory Names
<b>PO No.:</b> <b>PO Quantity:</b> <b>Consignee:</b> <b>Country of Origin:</b> <b>Destination:</b> <b>Packing units:</b> <b>Batch number:</b> <b>Production date:</b>	  RECYCLED PLEASE RECYCLE

**Important:** In order to respect the integrity of the logo, the shipping mark information area should be visually separated from the lower part of the UNHCR visibility logo and framed with the same indelible ink as the detailed information as per graphic 2.

**Technical Drawing**



**Logo and Shipping Marks on Individual Boxes**
**C. Application of the logo and marks on the top side of the secondary package:**

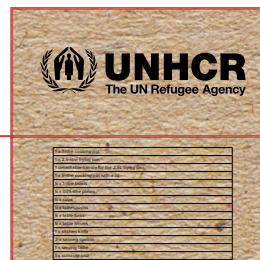
On the top side of the secondary packaging for kitchen sets, the UNHCR horizontal logo is to be placed centrally in one of the closures, occupying a minimum of 60% surface space and without any image distortions. The complete content list of the kitchen set should be included in the other closure. Please see the graphic below.

1 x 7-litre cooking pot
1 x 2.5-litre frying pan
1 detachable handle for the 2.5-litre frying pan
1 x 5-litre cooking pot with a lid
5 x 1-litre bowls
5 x 0.75-litre plates
5 x cups
5 x tablespoons
5 x table forks
5 x table knives
1 x kitchen knife
2 x serving spoons
1 x serving ladle
1 x scouring pad

**Technical Drawing**

Top

C



Left



Front



Right



Back



Bottom

