

UNHCR Environmentally Friendly Procurement

DOCUMENT VERSION

This is the first 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 15, 2024**.

MATTRESS (POLYURETHANE), RECYCLED

Providing material assistance to forcibly displaced populations is fundamental to UNHCR's protection mandate. In an emergency, mattresses are one of the main essential items that UNHCR distributes as part of the assistance to the affected populations. The provision of mattresses is a life-saving measure in many situations.

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 accessible¹.
- Manufacturing processes take into consideration the protection of the environment and respect for social standards².
- Products are made from sustainable materials and post-consumer recycled (PCR) materials³.
- Packaging is made from sustainable material, ideally with a second-life purpose.
- All unnecessary single-use plastic is removed⁴.
- 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 In the absence of PCR materials, pre-consumer (post-industrial) recycled materials are acceptable.

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

Item Application Sample



Design and comfort	The mattress serves as a platform for rest and relaxation, comprised of polyurethane (PU) foam and a textile cover with zipper or Velcro closure. It must be non-toxic for humans, breathable, secure, free from allergens and unpleasant odours. It should provide a soft, pleasant, and comfortable sensation for the skin. Its user-friendly design adheres to Universal Design Principles, ensuring accessibility for all.
Material(s)	<p>The material of the mattress is Polyurethane (PU) foam that is produced of polyol and isocyanate. Preferences will be given to mattresses, which contain sustainable* polyol and/or sustainable isocyanate.</p> <p><i>*Note, that "sustainable polyol", and "sustainable isocyanate" means polyol and isocyanate derived from:</i> <i>Option 1: post-consumer recycled PU through chemical recycling process.</i> <i>Option 2: bio-based sources (biomass).</i> <i>A target minimum of sustainable polyol is 30% (or, appr. 15% in an overall PU foam composition**).</i> <i>A target minimum of sustainable isocyanate is 30% (or, appr. 15% in an overall PU foam composition**).</i> <i>Nevertheless, a higher and lower percentage of sustainable polyol and isocyanate will also be considered.</i> <i>** Considering that the composition of PU foam is 50/50 polyol/isocyanate.</i> <i>Other sustainable alternatives may be considered. For example, mattresses made of PCR polyurethane obtained through the mechanical recycling process.</i></p> <p>The textile cover is made of virgin and recycled polyester. Other sustainable material mixtures can be considered. Preferences will be given to the product that contains the highest amount of sustainable material while satisfying the quality and usability requirements of the products.</p>
The general quality of mattresses	<p>PU foam: one piece, no glue assembled pieces. PU foam must be neat and clean, well-finished, of homogenous quality, and free of any visible imperfections and/or defects.</p> <p>Textile cover: The textile cover must be free from any defects that affect mattress performance, such as holes, tears, etc. The textile cover should have good finishing, straight edges, a neat cut, and good-quality sewing.</p>
Size	Length: 1900 mm (+5%) Width: 800 mm (+5%) Thickness: 100-150 mm (+5%)
Density	PU foam: Minimum 21 kg/m ³ (+5%) Textile cover: 100-250 g/m ² (+5%)
Weight	The weight of a mattress will depend on its dimensions (length, width, and thickness) and density. However, the minimum weight of the mattress should be 3.8 kg (+5%). Shortage in weight shall not exceed 1% for the total quantity received.
SAG factor	Minimum 2.
Colours	Colour of the foam: homogeneous light colour (grey, yellow, milky, white, etc.) Colour of the textile cover: dark uniform colour (dark blue, grey, brown, etc.). Military imprints, red or white colours are not accepted.
Sewing	Head side: external sewing on the width minimum one line. Length side and width side: internal sewing using stitching minimum 3 line.
Zipper/Velcro	Requirement depending on Purchase Order. Zipper or Velcro must assure strong, good-quality closing. Located on the width.
Microbiology	Bacteria/Fungi/Yeast: none in the foam or on the cover.
Certificates	A copy of the national and/or internationally recognized quality certificate of the manufacturing company must be provided. A certificate showing compliance with the specified technical requirements should be also provided.
Shelf life and lifespan	Shelf life: minimum two years Lifespan: minimum five years
Warranty	Warranty against manufacturing defects (minimum of one year from the date of receipt).

Primary packaging

Reducing plastic waste in the environment: avoid individual packaging for mattresses whenever possible. If individual packaging cannot be removed, use plastic packaging containing recycled plastic. Avoid compostable plastics.

Secondary packaging

An optimal number of products should be packed in export-quality secondary packaging. Sustainable materials (e.g. recycled) with natural colour are preferred. Long-lasting plastics such as tarpaulin that have a second-life purpose in the field could also be considered. Innovative solutions are welcome.

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

The mattresses 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 welcome. Avoid compostable materials for packaging and increase recycled content wherever possible. All the plastic packaging materials -wrapping film, straps (if any), etc. should contain a proper recycling code to specify the type of plastic used. Use recycling codes as per ASTM International Resin Identification Coding System (RIC).

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.

Manufactured marking

Each mattress should include a tag stitched in the hem of a textile cover, see the reference to a graphic example of a tag below. The tag should include the following:

- UNHCR logo
- Produced for UNHCR by the manufacturer's name
- a unique reference batch number
- the date of manufacturing
- TOG 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
- Recycling identification symbol and code (as per ASTM International Resin Identification Coding System (RIC))
- QR code to a page assigned by UNHCR

Supplier's and manufacturer's logos are prohibited.

The final marking on the tag, letter size, and design needs to be approved by the UNHCR before production.

Marking on the secondary packaging

UNHCR logo + MATTRESS, 1.9x0.8m, number of pieces + PO number.

Supplier's and manufacturer's logos are prohibited.

The marks must remain readable and well fixed on the bale 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).

Marking techniques

- Laser engraving
- Printing with water-based ink
- Printing on sustainable sticky tapes
- Printing on sustainable sticky tapes

Ink/colouring must be non-toxic and ecologically friendly

Graphic Reference for the Tag

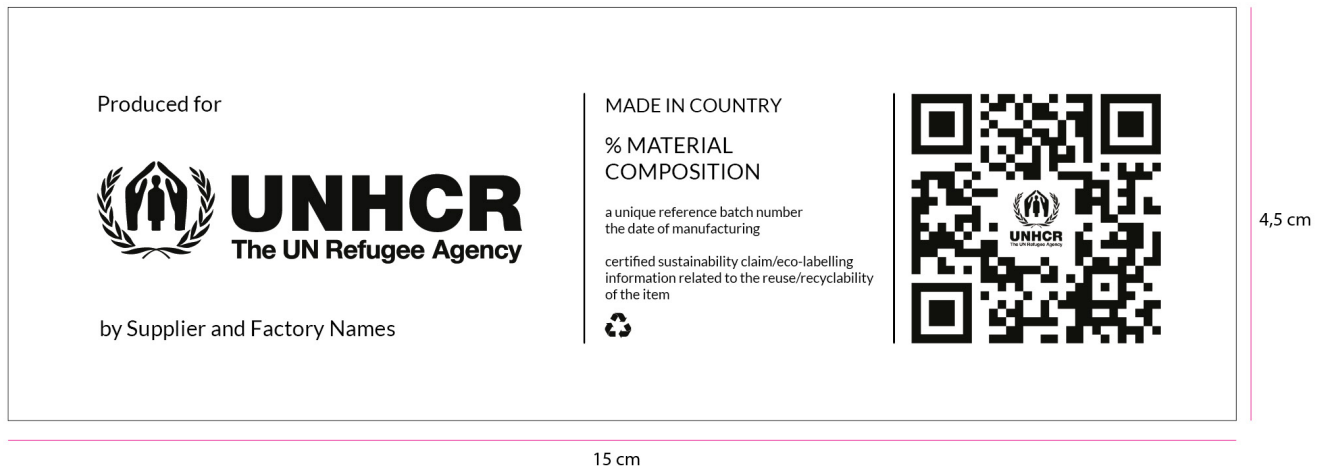
Every mattress should include a tag stitched to the side.

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- the date of manufacturing
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UNHCR Logo Application Reference

Horizontal logo



Minimum size

