TEST REPORT

Applicant: MID OCEAN BRANDS B.V.
UNIT 711-716 7/F TOWER A
83 KING LAM STREET
CHEUNG SHA WAN
KLN

Attn: DEREK HUI

Number: HKGH03251432

Date: Jun 11, 2025

Sample and Information provided by customer :
Item Name : **Hot Water Bottle**
Item No. : **MO2720**
Quantity : 14 pieces
Vendor : 116737
Country of Origin : China

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For and on behalf of :
Intertek Testing Services HK Ltd.

Dorothy M.Y. Lau
Vice President

Intertek Testing Services Hong Kong Limited
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Conclusion:
The submitted sample was tested under the following requirements requested by the applicant, subject to the information stated in the remark and attached page(s) for details :

	Requirement	Result
(1)	BS 1970:2012 Hot water bottles manufactured from rubber and PVC – Specification	Pass

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Decision Rule(s):
When a statement of conformity to a specification or standard is provided on test report, the decision rule shall be applied. For details, please refer to Intertek's "Decision Rule Document" and is available on Intertek's website. https://intertekhk.grd.by/decision-rule-doc..
If decision rule already inhered in the requested specification or standard, Intertek's "Decision Rule Document" is not applicable and indication of "∞" was shown as above table.
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(1) Physical and Mechanical Tests for Hot Water Bottles

Test standard: BS 1970: 2012 Hot water bottles manufactured from rubber and PVC – Specification.

Number of samples tested: Twelve (12) pieces.

Material of hot water bottle body: PVC

Closure type: Screw stopper Filling type: Partial filling

Clause	Requirement	Result
3	Composition	P
4	Physical properties	
4.1	Visual examination	P
4.2	Thickness	P
4.3	Filling characteristics	P
5	Closures	
5.1	General	P
5.2	Test for separation of screwed closures	P
5.3	Rubber components	NA
6	Performance	
6.1	Leakage	P
6.2	Strength of bonded (or welded) seams	P
6.3	Pressure test	P
6.4	Tensile stress-strain properties	
6.4.2	Tensile tests for rubber hot water bottles	
6.4.2.1	Tensile stress–strain properties before ageing	NA
6.4.2.2	Tensile stress–strain properties after ageing	NA
6.4.2.3	Tensile stress–strain properties after immersion	NA
6.4.3	Tensile tests for PVC hot water bottles	
6.4.3.1	Tensile stress–strain properties before ageing	P
6.4.3.2	Tensile stress–strain properties after ageing	P
6.4.3.3	Tensile stress–strain properties after extraction	P
6.5	Other material specific requirements	
6.5.1	Tension set for rubber hot water bottles	NA
6.5.2	Percentage mass change after extraction for PVC hot water bottles	P
6.5.3	Creep resistance for PVC hot water bottles	P
6.6	Tear strength	P
7	Marking	P
8	Informative labelling	
8.1	General	P
8.2	Hot water bottles with screw stoppers	P
8.3	Hot water bottles with closures other than screw stoppers	NA
9	Packaging	NA

Abbreviation : P = Pass; NA = Not Applicable; NR = Not requested by the applicant

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Test data:

4.2 Thickness

Measured capacity: 403.9 ml
Measured minimum thickness: 1.52 mm

Requirement:

Rubber		PVC	
Capacity ml	Minimum Thickness mm	Capacity ml	Minimum Thickness mm
< 2000	1.4	< 800	1.5
≥ 2000	1.5	≥ 800 < 2000	1.7
		≥ 2000	1.8

4.3 Filling characteristics

Measured diameter of filling aperture: 21.4 mm

Requirement:
Diameter of filling aperture shall ≥ 18mm

6.2 Strength of bonded (or welded) seams

Specimens	Measured strength of bonded (or welded) seams (N)
1	131.2
2	125.0
3	129.0
4	136.1
5	131.7
6	132.6

Requirement:
All measured strength of bonded (or welded) seams shall ≥ 72N

6.4.3.1 Tensile stress–strain properties before ageing

Side	Direction	Tensile strength at break (N/mm)	Elongation at break (%)
Ribbed	Vertical	15.1	152
	Horizontal	12.9	238
Requirement		≥ 12.0	≥ 150

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6.4.3.2 Tensile stress–strain properties after ageing

Side	Direction	Tensile strength at break (N/mm)	Elongation at break (%)
Ribbed	Vertical	14.6	152
	Horizontal	14.3	259
Requirement		≥ 12.0	≥ 150

6.4.3.3 Tensile stress–strain properties after extraction

Side	Direction	Tensile strength at break (N/mm)	Elongation at break (%)
Ribbed	Vertical	14.4	157
	Horizontal	14.7	320
Requirement		≥ 12.0	≥ 150

6.5.2 Percentage mass change after extraction

	Measured value	Requirement
Percentage mass change(%)	+1.9%	Percentage mass change shall be -5% to +15% inclusive

6.5.3 Creep resistance for PVC hot water bottles

	Measured value	Requirement
Percentage creep at 60 minutes (%)	35%	Not greater than 50%

6.6 Tear strength

Side	Direction	Tear strength (N)
Ribbed	Parallel to ribs	67.9
	At right angle of ribs	66.3
Requirement		≥ 60

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7 Marking

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8 Informative labelling

MO2720 Hot water bottle

EN

WARNING – HOT WATER BOTTLES CAN CAUSE BURNS.
AVOID PROLONGED DIRECT CONTACT WITH THE SKIN.

Instruction
This hot water bottle is designed for partial filing.
When filling this hot water bottle, do not use boiling water and fill to a maximum of two-thirds capacity or less. Do not overfill as this might cause the bottle to burst. Hold the bottle by the neck in an upright position and fill slowly to avoid hot water splashing back.
Expel air from the bottle by lowering it carefully onto a flat surface until water appears at the opening.
Screw the stopper sufficiently tight to ensure that there is no leakage. Finger-tight should be adequate. Finally, make sure the funnel is empty.
If there is a possibility that prolonged contact with the skin could occur, an adequate cover should be used to prevent burns.
Under no circumstance should the hot water bottle be used as a cushion and be sat on.
Do not fill using water from the domestic hot water system as this can considerably shorten the life of the hot water bottle.
Prevent contact with hot surfaces.
Prevent contact with oil or grease.
When not in use, drain completely and keep, with the stopper removed, in a cool, dry, dark place. Prevent exposure to sunlight.
Do not place anything on top of the bottle during storage.
Check the bottle and stopper for wear and damage prior to use.
Do not use this water bottle to hold drinks.
Retain these instructions for future reference.

Date sample received : May 14, 2025, Jun 02, 2025
Testing period : May 14, 2025 to Jun 06, 2025

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(2) 19 Toxic Element Migration Test

Test Method : EN 71-3 : 2019 + A1 : 2021. Acid extraction method was used and toxic elements content were determined by Inductively Coupled Argon Plasma Spectrometry and Ion Chromatography- Inductively Coupled Plasma-Mass Spectrometry and/or Gas Chromatographic - Mass Spectrometry

Category (III): Scraped-off toy material:

Element	Result (mg/kg)		Limit (mg/kg)
	(1)	(2)	
Soluble Aluminium (Al)	<300	<300	28130
Soluble Antimony (Sb)	<10	<10	560
Soluble Arsenic (As)	<10	<10	47
Soluble Barium (Ba)	<10	<10	18750
Soluble Boron (B)	<50	<50	15000
Soluble Cadmium (Cd)	<5	<5	17
Soluble Chromium (III) (Cr III)	<10	<10	460
Soluble Chromium (VI) (Cr VI)	<0.025	<0.025	0.053
Soluble Cobalt (Co)	<10	<10	130
Soluble Copper (Cu)	<10	<10	7700
Soluble Lead (Pb)	<10	<10	23
Soluble Manganese (Mn)	<10	<10	15000
Soluble Mercury (Hg)	<10	<10	94
Soluble Nickel (Ni)	<10	<10	930
Soluble Selenium (Se)	<10	<10	460
Soluble Strontium (Sr)	<100	<100	56000
Soluble Tin (Sn)	<10	<10	180000
Soluble Organic tin ++	<5.0	<5.0	12
Soluble Zinc (Zn)	<100	<100	46000

mg/kg = milligram per kilogram

++ : Unless the test result was marked with "Δ", Organic tin content was not directly determined and was derived from migration result of total tin.

Organic tin test result was expressed as tributyl tin.

Chromium (III) value was calculated as difference between migration results of total Chromium and Chromium (VI) .

Tested Components:

(1) Beige plastic (body).
(2) White plastic (lid, lid connector).

Date sample received : May 14, 2025
Test Period : May 14, 2025 to Jun 10, 2025

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(3) 19 Toxic Element Migration Test

Test Method : EN 71-3 : 2019 + A2 : 2024. Acid extraction method was used and toxic elements content were determined by Inductively Coupled Argon Plasma Spectrometry and Ion Chromatography- Inductively Coupled Plasma-Mass Spectrometry and/or Gas Chromatographic - Mass Spectrometry

Category (III): Scraped-off toy material:

Element	Result (mg/kg)		Limit
	(1)	(2)	(mg/kg)
Soluble Aluminium (Al)	<300	<300	28130
Soluble Antimony (Sb)	<10	<10	560
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Soluble Zinc (Zn)	<100	<100	46000

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End of report

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