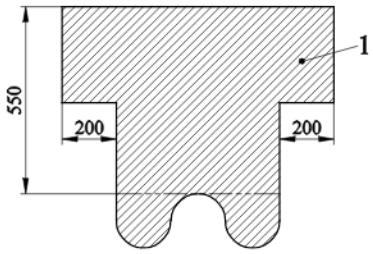
Dimensions in millimetres



Key

1 Accessibility zone

Figure 1c) — Bathtub accessibility zone – example of a section view

3.4
extension element
component that can be pulled out and pushed in

EXAMPLE baskets, drawers and alike

3.5
shear and squeeze point
gaps, in which a part of the body may be crushed when two parts move relative to each other

3.6
V-shaped opening
opening with the apex downwards and an included angle of less than 60°

3.7
changing board flap
changing surface that is raised to provide access to another function, e.g. a bathtub

4 General requirements

4.1 Dimensions

The dimensions of the changing area, when measured in accordance with A1 EN 12221-2:2008+A1:2013, 5.2 A1 shall be for type 1 changing units at least width: 380 mm, length: 650 mm, and type 2 changing units at least width: 550 mm and length: 750 mm.

A1 The length of the changing area is the intended longitudinal position of the child on the unit.

The width of the changing area is the measurement perpendicular to the length. A1

4.2 Materials

4.2.1 Wood

Wood, wood-based materials and materials of vegetable origin shall be free from decay and insect attack when checked in accordance with [A1] EN 12221-2:2008+A1:2013, 5.1 [A1].

4.2.2 Surfaces and materials

Any coating of paint, varnish, lacquer or similar substances and parts consisting of dyed materials, leather, textiles, and plastics materials within the accessibility zone shall be made using products which in their soluble compound do not exceed the following amounts:

Antimony	:	60 mg/kg
Arsenic	:	25 mg/kg
Barium	:	1000 mg/kg
Cadmium	:	75 mg/kg
Chromium	:	60 mg/kg
Lead	:	90 mg/kg
Mercury	:	60 mg/kg
Selenium	:	500 mg/kg

Where a surface is coated with a multi-layer paint or similar coating, the sample shall be taken down to the base material.

The test procedure is defined in EN 71-3.

5 Construction

5.1 Holes, gaps and openings

The following requirements shall apply before and after testing in accordance with [A1] EN 12221-2:2008+A1:2013, Clause 5 [A1].

5.1.1 Entrapment of fingers

Within the accessibility zone there shall be no holes, gaps and openings with a width greater than 7 mm and less than 12 mm, unless the depth is less than 10 mm when measured in accordance with [A1] EN 12221-2:2008+A1:2013, 5.3.1 [A1].

5.1.2 Entrapment of limbs

Within the accessibility zone there shall be no holes, gaps and openings having a width greater than 25 mm and smaller than 45 mm when measured in accordance with [A1] EN 12221-2:2008+A1:2013, 5.3.2 [A1].

5.1.3 Entrapment of head, neck and torso

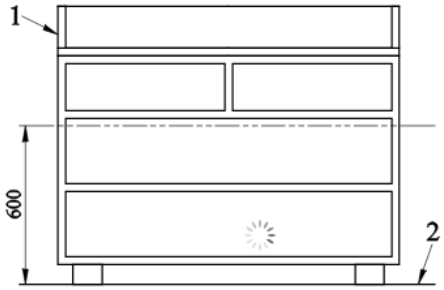
5.1.3.1 Within the accessibility zone there shall be no hole, gap or opening larger than 65 mm and less than 223 mm when measured in accordance with [A1] EN 12221-2:2008+A1:2013, 5.3.3.1 [A1].

5.1.3.2 Within the area 600 mm above the floor to the accessibility zone, see Figure 2, there shall be no hole, gap or opening accessible in normal use that allows the type 1 head probe to pass completely through unless it also allows the type 2 head probe to pass completely through, when tested in accordance with [A1] EN 12221-2:2008+A1:2013, 5.3.3.2 [A1].

5.1.3.3 V-shaped openings

Within the area 200 mm above the floor to the accessibility zone any hole, gap or opening accessible in normal use that allows the type 1 head probe to pass completely through shall not be a V-shaped opening as defined in 3.6 when tested in accordance with [A1] EN 12221-2:2008+A1:2013, 5.3.3.3 [A1].

Dimensions in millimetres



Key

1 Changing unit

2 Floor

Figure 2 — Head Entrapment

5.1.4 Cords, strings and other narrow fabrics

Cords, strings and other narrow fabrics (e.g. those used for ties) shall have a free length of not more than 220 mm when tested in accordance with [A1] EN 12221-2:2008+A1:2013, 5.3.4 [A1].

5.1.5 Loops

Loops shall not have a peripheral dimension greater than 360 mm when tested in accordance with [A1] EN 12221-2:2008+A1:2013, 5.3.5 [A1].

5.2 Edges and protruding parts

Edges and protruding parts accessible in normal use shall be rounded or chamfered and free of burrs (see [A1] EN 12221-2:2008+A1:2013, 5.3.6 [A1]).

The upper edges of the barriers and the changing surface shall have a radius of not less than 2 mm.

5.3 Moving parts

Changing board flaps are excluded from this requirement, as they are covered by 5.12.

When the changing unit is erected ready for use the distance between two parts within the accessibility zone which move relative to each other shall always be less than 5 mm or more than 12 mm throughout the entire movement when tested in accordance with [A1] EN 12221-2:2008+A1:2013, 5.4 [A1].

5.4 Locking and folding mechanisms of the complete unit

If the changing unit can be folded it shall not fold when tested in accordance with [A1] EN 12221-2:2008+A1:2013, 5.10. [A1]

Locking and folding mechanisms shall function correctly before and after being tested in accordance with [A1] EN 12221-2:2008+A1:2013, 5.10 [A1].

When the changing unit is erected ready for use, the locking mechanisms shall fulfil one of the following requirements:

a) require a minimum force of 50 N to release the folding mechanism before and after being tested according to [A1] EN 12221-2:2008+A1:2013, 5.10.2 [A1]; or

b) require at least two consecutive actions to release the mechanism, the operation of the second being dependent on the first having been carried out and maintained; or

c) require at least two separate but simultaneous actions to release the mechanism, operating on different principles.

[A1] Changing board flaps and wall mounted changing units are excluded from this requirement. [A1]

5.5 Small detachable components

Any small detachable component of the changing unit that can be detached when tested in accordance with [A1] EN 12221-2:2008+A1:2013, 5.5 [A1] shall not fit wholly in the cylinder described in [A1] EN 12221-2:2008+A1:2013, 4.10 [A1].

5.6 Castors/wheels

Castors/wheels shall not be fitted except in the arrangement, either:

— two or more castors/wheels and at least two other support points; or

— four or more castors/wheels, of which at least two can be locked.

The locks shall prevent the castors/wheels from rolling and they shall not unlock when tested in accordance with [A1] EN 12221-2:2008+A1:2013, 5.12 [A1].

5.7 Self-tapping screws

Self-tapping screws shall not be used to fasten any component that is designed to be removed or loosened when dismantling the changing units for purposes of transportation or storage.

NOTE Self-tapping screws include wood screws, particleboard screws and alike.

5.8 Stability

When tested in accordance with [A1] EN 12221-2:2008+A1:2013, 5.6 [A1], the changing unit shall not overturn and the maximum movement of any changing board flap shall be 10° from its closed position.

5.9 Strength

When tested in accordance with [A1] EN 12221-2:2008+A1:2013, 5.7 [A1] the function of the changing unit shall be unimpaired.

5.10 Extension elements

Extension elements located above the changing area shall be fitted with effective open stops.

5.11 Barriers

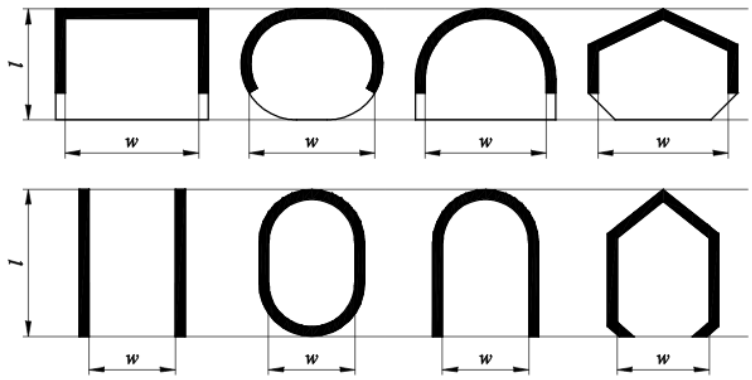
Barriers shall be provided as an integral part of the changing unit or by means of an additional item, e.g. barrier pad that can be affixed to the changing unit.

a) if w is greater than l and greater than 600 mm then the changing area shall have barriers on three sides of the changing area covering at least 75 % of l (see Figure 3);

b) if l is greater than w the changing area shall have barriers on two sides of the changing area covering at least 90% of l (see Figure 3).

Where w is the width of the changing area (see 4.1) and l is the length of the changing area (see 4.1).

For wall-mounted units, the wall is to be considered as a barrier for this side.



Key

l = length

w = width

Figure 3 — Examples for arrangements of barriers

When tested in accordance with [A1] EN 12221-2:2008+A1:2013, 5.8 [A1], the barriers from the changing unit shall not become damaged or loosened, nor shall the test cylinder fall from the changing area.

5.12 Changing board flap

5.12.1 Impact test

Where the changing unit has a flap, which allows for an additional function, for example access to a bathtub, it shall not close and the fittings, e.g. locking mechanisms, hinges etc. shall not be damaged when tested in accordance with A1 EN 12221-2:2008+A1:2013, 5.9.1 A1.

5.12.2 Drop test

Where the changing unit has a flap, locking mechanisms, hinges etc. shall not be damaged and the changing unit shall function normally after testing in accordance with A1 EN 12221-2:2008+A1:2013, 5.9.2 A1.

5.13 Child bath tub

After testing in accordance with A1 EN 12221-2:2008+A1:2013, 5.11 A1, no breakage or leakage shall be observed.

The child bathtub and the changing unit shall remain intact and function normally.

6 Plastic packaging

Any plastic covering used as packaging that does not fulfil the requirements of EN 71-1, shall be conspicuously marked in the official language(s) of the country where the changing unit is sold with the following statement:

"TO AVOID DANGER OF SUFFOCATION REMOVE PLASTIC COVER BEFORE USING THIS ARTICLE. THIS COVER SHALL BE DESTROYED OR KEPT AWAY FROM CHILDREN"

NOTE The statement may be expressed in different words providing they clearly convey the same information

7 Instructions for use

Instructions shall be provided in the official language(s) of the country where the unit is sold. These instructions shall be headed **"IMPORTANT. RETAIN FOR FUTURE REFERENCE. READ CAREFULLY"**.

These instructions shall include the following:

a) the warning: WARNING: "Do not leave the child unattended";

the following symbol may be used with the warning sentence.

5.6.3 Stability of bathtub mounted changing units

Attach the unit in accordance with manufacturer's instructions to the bath test base as shown in Figure 9a).

Remove the changing pad, if detachable.

Place the test beam with its 80 mm wide face (see 4.11) horizontally onto the changing area so that its centre of gravity is positioned vertically above the geometric centre of the changing area. The beam shall be positioned perpendicular to the side to be checked.

Determine the load application point by measuring 100 mm inwards from the innermost point of contact of the test beam with the barrier.

Fix the test beam with its 80 mm wide face to the changing area and place the centre of the test mass (see 4.9) or the test cylinder (see 4.4) at the determined load application point.

Where there is no barrier the 100 mm distance shall be measured from the edge of the changing area.

Apply an external force of 200 N, at a distance of 50 mm from the outer edge of the changing unit as shown in Figure 9a).

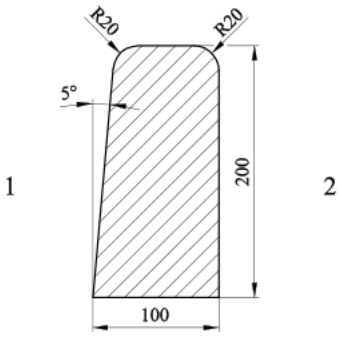
All tests shall be made in the following order:

— stability under lowest top weight (5 kg internally, 200 N externally):

— stability under heaviest top weight (15 kg internally, 200 N externally).

Check all four sides of the unit.

Dimensions in millimetres



Key

1 Inside

2 Outside

Figure 9 b) — Cross section; bath test base, right side

5.7 Strength

Position the changing unit in its maximum extended position if possible, ready for use on the appropriate test base (see 4.5, 4.6, 4.7). Place a total mass of 50 kg uniformly distributed on the top of the changing area.

If the changing unit is fitted with shelves or drawers, load each shelf or drawer with a weight of 2 kg.

Leave the changing unit under these load conditions for one hour, then remove the loads and leave the changing unit for 30 minutes.

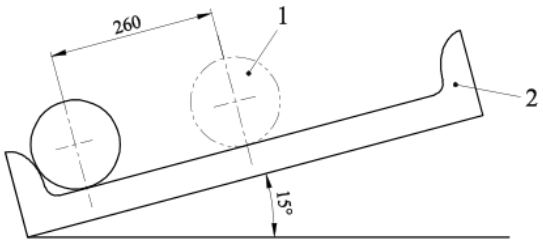
5.8 Barriers

If a changing pad is supplied or recommended in the manufacturer's instructions for use this shall be fitted before carrying out the test.

Place the changing unit on an inclined surface at 15° (+ 0,5°/ 0°) to the horizontal and put stops against all legs to prevent it overturning.

Position the test cylinder (see 4.4) in such a way that its turning axis lies parallel to the safety barrier to be tested (see Figure 10) so that the cylinder rests against the barrier to be tested.

Dimensions in millimetres



Key

1 Test cylinder 15 kg

2 Barrier

Figure 10 — Effectiveness of barriers

Roll the cylinder away from the barrier and release it when its longitudinal axis is aligned with, and at a distance of 260 mm from its rest position against the barrier.

Test each safety barrier three times.

Check whether the number and length of the barriers complies with the requirements in accordance with [A1] EN 12221-1:2008+A1:2013, 5.11 [A1].

5.9 Changing board flap

5.9.1 Impact test

Legs, wheels or castors shall be positioned against stops (see 4.8). Raise the changing board flap from the closed position to the fully open position.

Where the changing board flap is provided with a locking device to maintain it in the open position the test shall be carried out with the locking device engaged.

Use the side impacter (see 4.15) and apply 5 impacts as shown in Figure 11 to one end of the top edge of the flap in the closing direction. Drop the side impacter through an angle of 45° to the vertical line.

Repeat the test at the other end of the top edge of the changing flap.

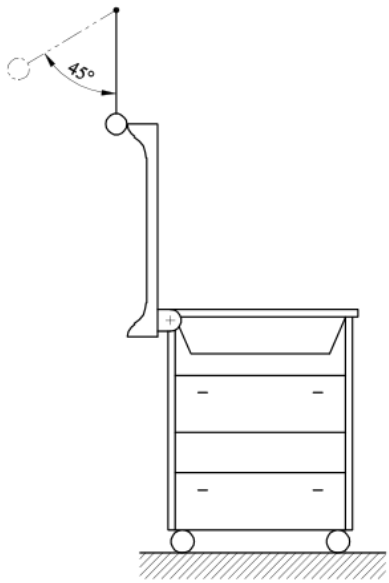


Figure 11 — Flap impact test

5.9.2 Drop test

Allow the flap to fall freely from the most onerous position until it comes to rest. Carry out the test ten times.

5.10 Locking and folding of the complete unit

Open and close the complete unit three hundred times fully operating any associated locking mechanisms.

5.10.1 Erect the changing unit ready for use. Apply a force of 200 N at any position and any direction on the frame considered likely to cause folding. Apply the force five times at this point and maintain each application for 2 min.

5.10.2 Gradually apply a force of 50 N by any adequate means in any direction that corresponds to normal use when operating the mechanism.

5.11 Child bathtub

5.11.1 Static strength

Place the child bathtub in the position ready for use. Fill the child bathtub with water to 10 mm from the lowest point of the rim. Leave for 15 min.

This test shall be carried out before and after 5.11.3.

5.11.2 Thermal test

Place the child bathtub in the position ready for use.