Claims:

1. A transport container system

with an outer container (1) made from a rigid, resistant material, having a tub-shaped bottom part (4) comprising a bottom (2) and a casing (3) and optionally a lid (5) closing the bottom part (4) at the open side,

with a tub-shaped inner container (6) inserted into the bottom part (4) of the outer container (1) and having an inner bottom (7) and an inner shell (8),

wherein the inner container (6) forms a receiving space (9) open at the top for goods to be transported,

wherein the walls of the inner shell (8) run parallel to each other or diverge, starting at the inner bottom (7), in slightly conical fashion from each other,

wherein the inner bottom (7) has inner dimensions in the receiving space (9), namely, a particular clear length and a particular clear width,

wherein a plate-shaped latent heat storage element (10) can be arranged on the inner bottom (7) in the receiving space (9) and

wherein the outer dimensions of a latent heat storage element (10) which can be arranged on the inner bottom (7) can at most correspond substantially to the inner dimensions of the inner bottom (7) in the receiving space (9),

characterized in that

the inner container (6) comprises an inwardly protruding projection (11) at the upper edge of the inner shell (8) at least on each of two oppositely situated sides, and

the clear distance between the oppositely arranged projections (11) is slightly smaller than the corresponding inner dimension – length or width – of the inner bottom (7) in the receiving space (9), so that the projections (11) form a support for a latent heat storage element (10), i.e., a latent heat storage element (10) with a corresponding outer dimension can be laid down on these projections (11), and

a spacing is present at the casing (3) and preferably also at the bottom (2) between the inner container (6) and the outer container (1), and

the inner container (6) has an encircling collar (17) at the upper edge, which reaches outward beyond the inner shell (8), by which the spacing between the inner container (6) and the outer container (1) is covered, and

an outer encircling sealing lip (19) is formed on the collar (17), said sealing lip's outer dimensions being chosen such that the inner container (6) inserted in the bottom part (4) of the outer container (1) is press-fitted here.

2. The transport container system as claimed in claim 1, characterized in that the projections (11) are molded on the inside of the inner shell (8) or otherwise firmly mounted, especially by gluing, or releasably mounted, especially inserted.

3. The transport container system as claimed in claim 2, characterized in that the inner shell (8) is at least two-piece, such that one upper piece (8') of the inner shell (8) comprising the projections can be removed from the rest of the inner shell (8).

4. The transport container system as claimed in claim 1, characterized in that the projections (11) are formed on an insert frame (13) separate from the inner container (6),

wherein, preferably, a seat (14) for the insert frame (13) is formed at the upper edge of the inner shell (8) and the insert frame (13) is arranged in the seat (14) on the inner container (6).

5. The transport container system as claimed in one of claims 1 to 4, characterized in that

a first latent heat storage element (10) is arranged in the receiving space (9) of the inner container (6) on the inner bottom (7) and

a second latent heat storage element (12) with identical outer dimensions to the first latent heat storage element (10) is arranged on the projections (11).

6. The transport container system as claimed in one of claims 1 to 5, characterized in that

the inner container (6) is formed as an injection molded part made of plastic, preferably of a thick-wall foamed plastic, especially expanded polypropylene (EPP).

7. The transport container system as claimed in one of claims 1 to 6, characterized in that

the inner container (6) is accurately fitted into the bottom part (4) of the outer container (1).

8. The transport container system as claimed in claim 1, characterized in that at least one vacuum insulation panel (16) is arranged in the spacing between the inner container (6) and the outer container (1).

9. The transport container system as claimed in claims 8, characterized in that

a seat groove (18) for the edge of at least one vacuum insulation panel (16) is formed on the collar (17) at the bottom side.

10. The transport container system as claimed in one of claims 1 to 9, characterized in that

the inner container (6) has its own inner lid (20).

11. The transport container system as claimed in claim 10, characterized in that

the inner container (6) has an encircling seat (21) for the inner lid (20) at the upper edge of the inner shell (8), in which the inner lid (20) is or can be accurately fitted.

12. The transport container system as claimed in claim 10 or 11, characterized in that a seat (23) for at least one vacuum insulation panel (22) is present on the inner lid (20).

13. A transport container, preferably as an inner container for a transport container system,

wherein the container (6) has an inner bottom (7) and an inner shell (8) and forms an upwardly open receiving space (9) for goods to be transported,

wherein the walls of the inner shell (8) run parallel to each other or diverge, starting at the inner bottom (7), in slightly conical fashion from each other, and

wherein the inner bottom (7) has inner dimensions in the receiving space (9), namely, a particular clear length and a particular clear width,

characterized in that

the container (6) comprises an inwardly protruding projection (11) at the upper edge of the inner shell (8) at least on each of two oppositely situated sides and

the clear distance between the oppositely arranged projections (11) is slightly smaller than the corresponding inner dimension – length or width – of the inner bottom (7) in the receiving space (9), and

the container (6) has an encircling collar (17) at the upper edge, which reaches outward beyond the inner shell (8), and

the container (6) has a seat groove (18) for the edge of at least one vacuum insulation panel (16) formed on the collar (17) at the bottom side

14. The container as claimed in claim 13, characterized in that

the projections (11) are molded on the inside of the inner shell (8) or otherwise firmly mounted, especially by gluing, or releasably mounted, especially inserted.

15. The container as claimed in claim 14, characterized in that

the inner shell (8) is at least two-piece, such that one upper piece (8') of the inner shell (8) comprising the projections can be removed from the rest of the inner shell (8).

16. The container as claimed in claim 13, characterized in that

the projections (11) are formed on an insert frame (13) separate from the container (6),

wherein, preferably, a seat (14) for the insert frame (13) is formed at the upper edge of the inner shell (8) and the insert frame (13) is arranged in the seat (14) on the container (6).

17. The container as claimed in one of claims 13 to 16, characterized in that

a first latent heat storage element (10) is arranged in the receiving space (9) of the container (6) on the inner bottom (7) and

a second latent heat storage element (12) with identical outer dimensions to the first latent heat storage element (10) is arranged on the projections (11).

18. The container as claimed in one of claims 13 to 17, characterized in that

the container (6) is formed as an injection molded part made of plastic, preferably of a thick-wall foamed plastic, especially expanded polypropylene (EPP).

19. The container as claimed in claim 13, characterized in that an outer encircling sealing lip (19) is formed on the collar (17).

20. The container as claimed in one of claims 13 to 19, characterized in that the container (6) has a lid (20).

21. The container as claimed in claim 20, characterized in that

the container (6) has an encircling seat (21) for the lid (20) at the upper edge of the inner shell (8), in which seat the lid (20) is or can be accurately fitted.

22. The container as claimed in claim 20 or 21, characterized in that

a seat (23) for at least one vacuum insulation panel (22) is present on the lid (20).