Claims

1. A transport and storage system (7) for metal coils (8) for receiving cylindrical sheet metal coils, in particular horizontally oriented ones, wherein at least one first module (12) and one second module (25) are present, which are each formed from a stack of corrugated cardboard, wherein the liners (1, 4, 6) of the corrugated cardboard layers are oriented so that they extend substantially perpendicularly to a receiving surface (18) of the first module (12) for metal coils (8), characterized in that the second module (25) has contact surfaces for contacting the first module and is embodied for contacting the transport means wall, in particular the container wall.

2. The transport and storage system (7) according to claim 1, characterized in that the first module (12) engages in the second module (25) in a tongue-and-groove-like or plug-like manner.

3. The transport and storage system (7) according to claim 2, characterized in that
a) the height of the engaging region (35) corresponds to more than 20%, in particular more than 30%, of the height of the second module (25) or whereby
b) the height of the engaging region (35) corresponds to less than 30%, in particular less than 20%, preferably less than 10%, of the height of the second module (25),

   whereby that the width of the engaging region (35) corresponds to between 20% and 60% of the width of the second module (25),

   whereby the first and second modules (12, 25) are embodied to extend in total over a length of more than 20%, in particular more than 30%, especially preferably more than 40% of the coil width.

4. The transport and storage system (7) according to one of the preceding claims, characterized in that the first module (12) consists of a different corrugated cardboard quality, in particular a higher corrugated cardboard quality, than the second module (25), whereby the corrugated cardboard for forming the modules (12, 25), or the stacks of corrugated cardboard, or the corrugated cardboard and the stacks formed

therefrom are glued together in a waterproof manner,
whereby the paper material forming the corrugated cardboard is equipped or bonded in a way that makes it moisture-resistant and/or fungicidal.

5. The transport and storage system (7) according to one of the preceding claims, characterized in that similarly shaped first modules (12) and similarly shaped second modules (25) are positioned symmetrically opposite from one another on both sides of the coil (8) with respect to a vertical plane extending through the longitudinal axis of the coil (8).

6. The transport and storage system (7) according to one of the preceding claims, characterized in that the receiving surface (18) of the module (12) has a concave or elliptical curvature and is embodied for full-surface contact with part of a circumferential wall (11) of a coil (8).

7. The transport and storage system (7) according to one of the preceding claims, characterized in that the material for the liners (1, 4, 6) of the corrugated cardboard is a kraft liner and/or the corrugated webs (2, 5) are made of semichemical pulp or bogus paper, whereby the liners (1, 4, 6) and the corrugated layers (2, 5) are glued in a moisture-resistant and in particular waterproof manner.

8. The transport and storage system (7) according to one of the preceding claims, characterized in that the first module (12) and/or second module (25) has/have at least one hollow, chamber-like region.

9. The transport and storage system (7) according to one of the preceding claims, characterized in that the first module (12) and/or second module (25) has/have multiple hollow regions that form a web-like or truss-like supporting structure between them.

10. The transport and storage system (7) according to one of the preceding claims, characterized in that the corrugated cardboard layers are combined to form corrugated cardboard stacks which are glued together over their entire surface by means of the liners (1, 3, 6) so that an at least two-flute, in particular more than three-flute,

preferably more than ten-flute, and even more preferably more than twenty-flute composite or stack is formed.

11. The transport and storage system (7) according to one of the preceding claims, characterized in that the receiving surface (18) of one or more modules (12) and possibly an additional module form(s) a two-point support for a coil (8).

12. The transport and storage system (7) according to one of the preceding claims, characterized in that the modules (12) are braced directly or indirectly against a container wall with a first flat, upright leg (13) and the module (12) stands directly or indirectly on a container floor (16) with a leg (14) extending at right angles thereto, wherein the base of the module (12) is embodied with the concave or elliptically curved cylinder-segment-shaped receiving surface (18), which is embodied to rest against a circumferential wall (11) of a coil (8), wherein the radius of the concave, curved receiving surface (18) corresponds to the outer radius of a coil (8), or the elliptical curvature of the receiving surface (18) deviates by at most 100 mm, in particular at most 50 mm, from the outer radius of the coil (8), whereby in the case of an elliptical curvature of the receiving surface (18), the gap between the receiving surface (18) and the coil circumferential wall (11) is filled with wedge-like fitting pieces (33) or reusable rubber elements, in particular anti-slip mats (33), that are adapted to the elliptical surface on the one side and to the coil radius on the other.

13. The transport and storage system (7) according to one of the preceding claims, characterized in that the modules (12) are spaced apart from one another in the region of the longitudinal center of the coil (8), in particular spaced apart by 1 mm to 100 mm, preferably 5 mm to 50 mm, wherein each receiving surface (18) supports a partial circumference of the circumferential wall (11) of the coil (8) and the height (H) of the modules (12) is selected so that more than one third and in particular more than half of the coil diameter is supported, whereby that pieces cut out of modules (12, 25) are positioned to secure the load and space the modules (12) or coils (8) apart from one another.

14. The transport and storage system according to one of the preceding claims, characterized in that a corrugated cardboard module, which preferably reaches from one container wall to the opposite container wall, is positioned between a container floor (16) and a leg (14) extending parallel to the floor.

15. A use of a transport and storage system (7) according to one of the preceding claims in rail, truck, and maritime transport or in the storage of metal coils (8) in buildings.