Claims

1. A multi-layer sealing web (10) for a region of a structure, such as a roof, cladding, cellar or tanks, the outer layers (14, 22, 24) of which contain a base polymer comprising polyvinyl chloride or a polyvinylchloride-copolymer, and a plasticiser, as well as combination carrier insert (16) between the outer layers, which has a glass nonwoven (20) and a glass reinforcement (18) which consists of or contains a knitted fabric.

2. Multi-layer sealing web according to Claim 1,
c h a r a c t e r i s e d i n t h a t ,
the combination carrier insert (16) is connected to the outer layers (14, 22, 24) by means of a binding agent, which has a weight percentage in particular between 5 and 50 based on the sum of the weights of the binding agent and the combination carrier insert.

3. Multi-layer sealing web according to Claim 1 or 2
c h a r a c t e r i s e d i n t h a t ,
the threads of the knitted fabric (18) have threads running lengthwise and crosswise (30, 32, 34, 36, 38, 40), which are connected by linking yarns (42, 44), and in that preferably the lengthwise threads (30, 32) form a first layer (33) and the crosswise threads (34, 36, 38, 40) form a second layer (41), the lengthwise threads and the crosswise threads are connected by first and second linking yarns (42, 44), which in turn extend fixedly from the lengthwise threads, and that in the region of the cross points (54, 56, 58, 60) between the lengthwise threads and crosswise threads, the first linking yarns (42) run solely above and the second linking yarns (44) solely below the cross points in their regions in such a way that the cross points run between the first and second linking yarns, and preferably the linking yarns (42, 44) are connected to the lengthwise threads (30, 32) at or almost at the same points (44, 46, 48, 50).

4. Multi-layer sealing web according to Claim 1 or 2
c h a r a c t e r i s e d i n t h a t ,
the knitted fabric (18) is a weft-knitted fabric or a warp-knitted fabric or a combination

thereof.

5. Multi-layer sealing web according to at least one of the previous claims,
c h a r a c t e r i s e d i n t h a t ,
the glass reinforcement is attached to the glass nonwoven (20) by means of at least one binding agent from the group styrene-butadiene, acrylate, EVA (ethylene-vinyl acetate), PVC-based variants like PVC dispersions and PVC plastisol.

6. Multi-layer sealing web according to at least one of the previous claims,
c h a r a c t e r i s e d i n t h a t ,
the linking yarns (42, 44) and/or threads (30, 32, 34, 36, 38, 40) of the knitted fabric (18) have a degree of fineness between 2 tex and 20 tex, in particular 4 tex and 10 tex.

7. Multi-layer sealing web according to at least one of the previous claims,
c h a r a c t e r i s e d i n t h a t ,
the linking yarns (42, 44) or threads (30, 32, 34, 36, 38, 40), consist of a material from the group, polyester, polypropylene, polyamide, glass.

8. Sealing web according to at least one of the previous claims,
c h a r a c t e r i s e d i n t h a t ,
the glass nonwoven (20) has a surface weight between 30 g/m² and 90 g/m² and/or the glass fibres of the glass nonwoven have a thickness of between 13 µm and 18 µm.

9. Sealing web according to at least one of the previous claims,
c h a r a c t e r i s e d i n t h a t ,
the fibres of the weft and warp threads (30, 32, 34, 36, 38, 40) of the knitted fabric (18) which intersect at a right angle have a strand spacing of 2x2 to 6x6, in particular 3x3 to 4x4, wherein preferably the degree of fineness of the weft and warp threads (30, 32, 34, 36, 38, 40) of the knitted fabric (18) is 60 tex to 80 tex.

10. Sealing web according to at least one of the previous claims,
c h a r a c t e r i s e d i n t h a t ,

the plasticiser is a low-molecular-weight plasticiser, wherein particularly preferred the proportion of low-molecular-weight plasticiser in the outer layers (14, 22, 24) which contain a base polymer is between 25 wt. % and 45 wt.% and more particularly preferred the proportion of low-molecular-weight plasticiser is between 25wt. % and 37 wt.%, especially between 27 wt. % and 35 wt.%.

11. Sealing web according to claim 10,

c h a r a c t e r i s e d i n t h a t ,

the low-molecular-weight plasticiser is a phthalate-based plasticiser, in particular, from the group DPHP (Dipropyl heptyl phthalate) DINP (Diisonyl phthalate), DIDP (Diisodecyl phthalate) or a phthalate-free plasticiser or plasticiser at least (partially) bio-based.

12. Sealing web according to at least one of the previous claims,

c h a r a c t e r i s e d i n t h a t ,

the combination carrier insert (16) is impregnated with the binding agent based on at least one substance from the group: styrene-butadiene, acrylate, PVC, EVA in particular styrene-butadiene.

13. Sealing web according to at least one of the previous claims,

c h a r a c t e r i s e d i n t h a t ,

the sealing web (10) has a surface weight of between 1.4 kg/m² and 2.6 kg/m², however, in particular between 1.5 kg/m² and 1.9 kg/m², and/or the thickness of the sealing web (10) is between 1.0 mm and 2.5 mm, in particular between 1.2 mm and 2.0 mm, and/or the sealing web (10) has a tensile strength in N/50 mm of at least 800 in the lengthwise direction, preferably of at least 1000 but of particular preference would be 1150 to 1250, and/or in the crosswise direction at least 800, preferably 1100 to 1200, and/or the sealing web (10) has a tear resistance in N of between 170 and 250 in the lengthwise direction and of between 210 and 300 in the crosswise direction.

14. Sealing web according to at least one of the previous claims,

c h a r a c t e r i s e d i n t h a t ,

the glass nonwoven (20) runs along the outer side of the knitted fabric (18) of the side

which is not being attached to the surface being constructed.

15. Sealing web according to at least one of the previous claims,
c h a r a c t e r i s e d i n t h a t ,
the sealing web (10) contains one or more additives from the group: filling agents, pigments, colour additives, UV stabilisers, thermo-stabilisers, biocide.

16. Sealing web according to at least one of the previous claims,
c h a r a c t e r i s e d i n t h a t ,
the sealing web (10) consists of a first outer layer (14) which runs along the side to be attached to the construction surface, it also consists of a combination carrier insert (16), as well as at least one outer layer (22, 24) which runs along the side of the combination carrier insert which is not being attached to the construction surface, wherein preferably the side of the combination carrier insert (16) which is not being attached to the construction area has two layers, a middle layer (22) and an outer layer (24).

17. Sealing web according to at least one of the previous claims,
c h a r a c t e r i s e d i n t h a t ,
the outer layer (26) which faces away from the surface being constructed and/or the middle layer (22) and/or the layer (14) which runs along the side facing toward the surface being constructed, in particular, each layer (14, 22, 24) consists of or contains, in % by weight

low-molecular-weight plasticiser preferably phthalate-based	25 - 45, in particular, 27 - 37
Processing additives like lubricants	0 – 1.9, in particular, 0.1 – 1.9
Filling agents like calcium carbonate	0 -20, in particular, 0 - 15
PVC	45 – 57, in particular, 46 - 56
Antioxidant such as antioxidants	0 – 0.2, in particular, 0.1 – 0.2
UV stabiliser	0 – 0.23, in particular, 0.1 – 0.23

other stabilisers	1.5 – 1.8
Colour pigments except TiO_2	0 – 0.14, in particular, 0.905 – 0.10
Titanium dioxide	1.0 – 12, in particular, 1 – 8

18. Process for producing a sealing web (10) according to at least one of the previous claims, c h a r a c t e r i s e d i n t h a t ,
the outer layers (14, 24) are produced by extrusion, and are then joined to the combination carrier insert (16).

19. Process for producing a sealing web (10) according to at least one of the claims 1 to 18, c h a r a c t e r i s e d i n t h a t ,
the sealing web's (10) layers (22, 34) which run along the side of the combination carrier insert (16) facing away from the surface being constructed, are produced by co-extrusion, also that the coextruded layers, the combination carrier insert and layer (14) which was produced by extrusion and runs along the side being attached to the surface being constructed, are all joined to together by a single stack of calenders.

20. Process for producing a sealing web (10) according to at least one of the claims 1 to 18, c h a r a c t e r i s e d i n t h a t ,
the combination carrier insert (16) is fed into a first stack of calenders (200) which then by means of extrusion applies the outer layer (14) to the external side of the sealing web (10) that will run along the surface of building structure being constructed, that the combination carrier insert with the outer layer is then fed to a second stack of calenders (300) which then by means of co-extrusion applies the middle and outer layers (22, 24) to the external side of the sealing web which does not run along the surface of the building structure being constructed.