Claims

1. Solar module (1) in the form of a laminate which exhibits a solar cell system (3) having an encapsulation layer (5) on a back side and an encapsulation layer (7) on a front side of the solar cell system (3), a barrier layer (9) arranged on the back side encapsulation layer (5), and, arranged on the front side encapsulation layer (7), a first SiO_x layer (11), a base web layer (13), a second SiO_x layer (15), an optional lacquer layer (17), an adhesive layer (19) and a glass layer (23) whereby a silver containing low-E coating (21) is alternatively arranged within one or between two front side layers of the solar cell system (3),

   wherein the silver containing low-E coating (21) is arranged between the glass layer (23) and the adhesive layer (19), or

   wherein the silver containing low-E coating (21) is arranged between the SiO_x layer (15) and the base web layer (13), or

   wherein the silver containing low-E coating (21) layer is arranged within the front side encapsulation layer (7).

2. Solar module according to claim 1, wherein the adhesive layer (19) comprises a water scavenging adhesive.

3. Solar module according to claim 2, wherein the water scavenging adhesive is a polyurethane based adhesive.

4. Solar module according to one of claims 1 – 3 wherein the encapsulation layer (5, 7) comprises an encapsulation material selected from the group consisting of ethylene vinyl acetate (EVA), polyolefin elastomer (POE), polyvinylbutyral (PVB) and epoxy resins.

5. Solar module according to one of claims 1 – 4, wherein the encapsulation layer (5, 7) comprises a desiccant.

6. Solar module according to one of claims 1 – 5, wherein the barrier layer (9) comprises an aluminum foil preferably having a thickness of greater than 20 microns and less than 150 microns.

7. Solar module according to one of claims 1 – 6, wherein the barrier layer (9) comprises a film containing ethylene vinyl acetate and a desiccant whereby the film contacts the back side encapsulation layer (5).

8. Solar module according to one of claims 1 – 7, wherein a water vapour scavenging tape is arranged on an edge of the solar module (1).

9. Solar module according to one of claims 1 – 8, wherein the solar module (1) is enclosed by a frame (25) further comprising a desiccant (31) whereby the desiccant is arranged between the solar module and the frame.