

Professional tip

Formation of bubbles

Treatment suggestions

Causes:

The formation of bubbles on surfaces occurs when expanding water vapor builds up pressure. This is the case for example when the vapor has difficulties in penetrating a painted surface.

1 m³ water can produce 1000 m³ water vapor. As a result, there can be pressure conditions from up to 50-60bar under such a „surface boundary“, depending on the temperature on the surface!

Avoid the formation of bubbles with help of "symmetrical" paint layers:

Water vapor always moves in the direction of the temperature gradient: In the winter season it usually moves from the inside to the outside, in the summertime from the outside to the inside. Therefore, the coatings on the inside and outside area, for example of windows frames, need to be composed in a way that the vapor can diffuse equally through the painted surface from the inside to the outside and the other way around. Therefore it is necessary that indoor and outdoor paints are applied "symmetrically". If this is not the case, the result can be an overpressure under the denser paint film, with a subsequent formation of bubbles. Furthermore, the water vapor under the denser surface may lead to a moisture damage in the wood in the long run.

The building-up of diffusible coatings:

Priming: DUBNO Priming Oil N° 261 or
ADAO External Primer N° 259

Finishing: 3 applications of KALDET All Weather Stain N° 281 or
3 applications of ALIS Decking Oil N° 579, without primer

Renovation coatings:

If maintenance actions require the application of an additional layer on the outside of a window (given that the old layer is not too strongly weathered), also the inside of the window must be re-treated accordingly - and vice versa.

In case the exterior paint is strongly weathered, the new coating plus primer must be built-up the same way as the existing internal coating. Only this way, the undisturbed diffusion of the water vapor in both directions can be guaranteed.

Please refer to the technical data sheets on our website: www.livos.de

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