

## How to remove black iron oxide stains?

The appearance of black spots is the most common reaction of wood to iron. The blue-grey, then black spots that are spread over a large area are often mistaken for mould.

This is a superficial reaction of the wood with oxidized iron (rust). Damage occurs quickly and suddenly, often at night in the form of dew or rain on a dry deck.

### Typical Causes

- Metal splintering near the deck
- Lawn fertilizer carried by the wind or under the soles of shoes
- Contact of plaster or cement particles, which are carried by the wind.
- Metal residue on tools, such as drills or bits, from previous work on metal
- Metal residue on trailers and pallets, metal splinters during construction work around the deck.
- The tricky part is that you won't be able to detect discoloration on dry wood. The reaction only occurs when the metal oxidizes. This can happen with the first rain or dew, but also by oiling with a water-based product.

### Action / Damage repair

The oxalic acid ( $C_2H_2O_4$ ) recommended by us acts on the one hand as a light bleaching agent on the wood, which take care of the cleaning here. But the main effect of oxalic acid is to cancel the oxidation process of the metal. Namely, it extracts the oxygen atoms. This will make your deck impeccable again.

### Clean up

- You will need a bucket and a brush.
- Dissolve 25 to 50 g of oxalic acid in 500 ml of warm water. This is enough for an average deck of 25 m<sup>2</sup>.
- Apply this solution evenly, without splashing on surrounding objects

(whitening effect).

- Leave to act for 30 to 60 minutes (depending on the degree / duration of contamination).
- Then rinse with plenty of water to remove metal residues - and thus the cause - of oxidation from the terrace.
- After this treatment, your deck will look like new again.
- You may need to repeat the treatment after a few days if there is any metal residue left. If you have used galvanized screws, replace them immediately with stainless steel.
- If the deck is to be oiled: wait until you are sure that oxidation will not be repeated. If this happens under an oil layer, the treatment will be more difficult and the oil layer will be damaged.

**IMPORTANT:** All acids are toxic. In case of ingestion or eye contact, look for immediate medical attention. Oxalic acid is harmful to the respiratory tract. Therefore, when treating oxalic acid take the necessary precautions and keep oxalic acid out of the reach of children.