

Oxidative drying

Although the term "oxidative curing" more correctly describes the hardening process than "oxidative drying", in accordance with historical developments and technical colloquialisms, the latter term will be used in this document.

Oxidative drying is a specific variant of chemical curing. During drying, the cross-linking of the individual binder molecules relies on the role of atmospheric oxygen in the polymerisation process.

The following points must be observed in order not to delay the drying of oxidative coating systems.

- The surface must be properly sanded, wood moisture content max. 12 %
- The floor must be dry and free from any old coatings, oil, grease, wax, silicone, sanding dust and other contaminants
- Room temperature +15 °C to +25 °C, relative humidity 40 % to 65 %, material temperature +18 °C to +25 °C
- The area must be adequately and effectively ventilated during the drying phase

The speed of oxidative drying depends on a great many external factors such as temperature, air moisture content, ventilation, lighting, substrate (type & moisture content of the wood) and the coating layer thickness. Especially a high moisture content in the air will reduce the ability of the oil to react with the oxygen. Therefore, if the jobsite conditions reach a level of 50% rH or higher it is important to ensure proper air movement with fans.

The speed an oil dries increases with:

- higher temperatures
- lower air moisture contents
- thinner coating layer thicknesses
- better ventilation

Tropical woods have generally a grain structure which is more dense than other species. Therefore the penetration might be delayed. Always do test areas before coating the entire floor. Also please refer to the LOBA suitability list published online.