

I. The production of Kaindl Laminate and Real Wood Flooring

The carrier panels used in Kaindl Laminate and Real Wood Flooring are made of wood. For our HDF panels we use wood from trees freshly felled round the edges of the forests and which had to be cut down anyway in the interests of stabilising and maintaining the forests. The bonding agents used are based only on products which are close to nature and which can be disposed of without burdening the environment, i.e. no halogens, heavy metals, or chlorides. The properties of the carrier panels and the coating materials comply with the stringent European norms (= EN-Norms).

II. Emissions

Naturally grown wood contains formaldehyde. Formaldehyde (chemical formula: HCHO) is made by the oxidation of methane and methanol and is used as a raw material in the chemical industry for the production of various plastics, lacquers and adhesives – including those adhesives used by the wood-processing industry. For assessment purposes in this context the wood panels are classified into different emission categories. Kaindl only produce carrier panels in the E1 emission category (< 0.1 ppm HCHO / m³ air) (ppm = parts per million).

However, even more important is the emission assessment conducted on the finished product. The gas analysis conducted for us by recognised test institutes, such as LGA (Landesgewerbeamt Bayern), Nuremberg, or the Österreichisches Heizforschungsinstitut in Vienna, returned a value of 0.9 mg/h m³ (milligrams per hour per cubic metre). The permitted limit is 3.5 mg/h m³ (according to DIN EN 717-2). Clearly, therefore, Kaindl Flooring is well within this strict and legally prescribed limit. Gas chromatographic analysis confirm that there are no other emissions from Kaindl Flooring.

III. Health and Hygiene

Highly durable and wear-resistant coating finishes based on melamine-resin-impregnated coated papers and laminated panels have already been used for decades in kitchens, laboratories, offices, and working environments where high standards of hygiene are required (as in the food-processing industry and in medicinal installations). The said finishes satisfy the most stringent standards and physiologically are absolutely inert.

When used in Kaindl Laminate and Real Wood Flooring they display additional positive properties compared with other types of floor coverings such as carpets:

- by virtue of their sealed, smooth surfaces laminated floors are easy to keep clean and very hygienic.
- since dust cannot settle permanently on such surfaces they do not present a suitable environment for micro-organisms or household dust mites. This also means they are ideal for persons allergic to household dust.

Thus, by virtue of their healthy associations, Kaindl Laminate and Real Wood Floorings are also suitable for such sensitive environments in the home as the living room or children's rooms, and also in kindergartens.

IV. Disposal

The ultimate disposal of Kaindl Laminate and Real Wood Flooring after many years of service presents no problem to the environment regardless of whether disposal is achieved by burning or by recycling. This material does not come into the category of special waste. Indeed, for burning purpose this material is classified as a permitted solid fuel (even as standard fuel according to Appendix 1.2 to the 4th Federal Government Regulation for Protection against Emissions), and accordingly need not be sent to the public authority incinerators – and particularly not to those for the incineration of special waste material – for disposal.

As a more recent innovation Kaindl flooring can now be resolved into its original basic components by any of various hydrolysing processes developed by WKI Fraunhofer Working Group for Wood Research with the result that more than 85% of the mass can be recycled for use in the production of chip and fibre panels.

V. Summary

Kaindl Laminate and Real Wood Flooring are a highly durable form of floor covering which offers the additional advantage of having hygienic properties welcome in healthy homes. Such floorings are also the ideal solution for persons, who have allergies, and also for sensitive rooms in the home such as the living room and the children's rooms, and also for kindergartens. They do not release any emissions which could be harmful to health and their ultimate disposal – whether they be burned or recycled – present no hazard whatever to the environment.