

Standardisation around formaldehyde

What is it?

Formaldehyde is a substance that naturally occurs in wood. When walking through a forest, you will breathe in a low dose of this substance, which luckily is completely harmless. In the panel industry, glues are still used that are based on formaldehyde, known as urea-formaldehyde glues, in the manufacturing of MDF and chipboard.

The higher concentrations of formaldehyde released with new panels, however, are harmful to our bodies and can cause cancer.

In Europe, the USA, Japan and Australia, there are bodies that supervise the emission standard in order to drive down formaldehyde as far as possible.

How is the standard determined?

As is often the case, there are several guidelines, but we would conclude that the European and American bodies are authoritative. Their standards are very close, but still differ in a few respects.

Europe maintains the E standard. In America, this is CARB (California Air Resource Board) and the overarching national EPA (Environmental Protection Agency). Both CARB and EPA use the exact same standardisation.

EUROPE

E2 standard

- Only now permitted for furniture manufacturing; we note that E1 is chosen as standard
- Less than or equal to 30mg per 100g of panel material

E1 standard

- The same threshold value applies for both chipboard and MDF
- Less than or equal to 8mg per 100g of panel material

E0.5 standard

• Germany maintains the unofficial E0.5 standard. Their limits are half those of the European guidelines for all products. Because this is an unofficial standard, it cannot be certified. This means that German manufacturers can sell all their products in both Europe and America without problems.

E0 standard

- These are panels constructed from glues that are low in formaldehyde, but they are often very expensive and remain difficult to obtain for industrial applications for the time being

UNITED STATES

CARB 2 and EPA

- MDF: less than or equal to 0.11ppm
- Thin MDF: less than or equal to 0.13ppm
- Chipboard: less than or equal to 0.09ppm

Who can request certification?

The regulatory bodies are aiming to limit emissions at the source, so their initial presumption is that the raw panel must be compliant. Owing to further refinement with a top layer or edge banding, the emissions after processing will be even lower than the standard.

This means that manufacturers can obtain a certificate and that the processors of those panels will automatically be in line (known as 'compliance').

This is also the case for our manufacturing. We can never be certified ourselves, given that standardisation at the processor level does not exist. We do need to be able to demonstrate, however, that the manufacturer of our panels is certified.

What does Van Hoescke do?

The panel material for the assembled TANDEMBOX and LEGRABOX is E1-compliant, so perfect for our home market but not suitable for export to America. Besides E1, our TA'OR BOX system is also CARB 2-compliant, so this wooden drawer is in prime position for export outside of Europa.

But as mentioned above, we cannot present a certificate for this ourselves, as this is reserved for the panel manufacturers.