

The **high risk** of low-grade MDF

Slatwall specialist Jazolo only uses premium E1 grade MDF in its slatwall and panel products. Melanie Lester, sales director of Jazolo, explains why.



Do you know what the difference is between E1 and low-cost E2 grade MDF?

Apart from a small cost differential, the key difference is the amount of a toxic gas called formaldehyde that's contained within the material as part of the glue that sticks the particles together. It's the same stuff used by conceptual artists to pickle sharks and such like. However, whilst it acts as an effective preservative for dead things, it's not so good for those of us that are still alive.

In simple terms, the emissions of formaldehyde from quality E1 grade MDF are negligible, but this is not the case with cheaper E2 MDF, which contains a higher concentration of the substance.

Is the cost differential worth the risk?...

For an insight into the implications of exposure to formaldehyde, here's a description taken directly from The Department of Health and Human Services Agency for Toxic Substances & Disease Registry website (www.atsdr.cdc.gov):

"Low-dose acute exposure can result in headache, rhinitis, and dyspnea; higher doses may cause severe mucous membrane irritation, burning, and lacrimation, and lower respiratory effects such as bronchitis, pulmonary edema, or pneumonia. Sensitive individuals may experience asthma and dermatitis, even at very low doses. Formaldehyde vapours are slightly heavier than air and can result in asphyxiation in poorly ventilated, enclosed, or low-lying areas."

The most at-risk are those working with and cutting the E2 material. The very fine dust created becomes airborne

and can be inhaled causing irritation. Masks will help and reduce the risk of dust inhalation, but the airborne particles of formaldehyde are microscopic and will simply pass through the filter.

To give an indication of the level of concern regarding this issue, try a Google search on 'MDF and formaldehyde' and you'll see that there are over 67,000 results. You'll find trade internet forums full of discussions between concerned fabricators regarding the risks of working with the material.

Once any fabrication work has been completed and a finish applied, the risk of human exposure to formaldehyde reduces. However, to what extent and what potential health risk remains is not well documented, other than in manufacturers' claims – which are at best, partisan.

A high percentage of E2 MDF coming into the UK is from China, where manufacturing standards are not as well controlled as in the EU. Recent news stories concerning toxic substances in paints, toys and baby milk should fire a warning shot to UK businesses fabricating products using Chinese, or indeed any, E2 MDF.

This is not scare mongering; it's common sense. Not only do we as manufacturers and fabricators have a responsibility to our workforces and customers, we also have to consider the potential risk to our businesses from potential litigation resulting from damaged health.

This fact has obviously not been lost on a leading UK timber merchant business, which does not stock any E2

grade MDF.

Another point worth mentioning is that many low-cost E2 MDF sheets coming into the UK are supplied untrimmed, leaving the fabricator to cut-to-size. This not only means that harmful formaldehyde will be released when the sheet is cut down, it also adds time and therefore cost to the fabrication process, reducing any cost saving and therefore defeating the object of buying cheap MDF in the first place!

The good news is that the low-formaldehyde E1 grade MDF remains a superb, highly durable, stable and easy-to-finish material for interiors and shopfitting. We as a company will always use it as the basis of our range of Slatwall and panelling products, because it gives the optimum balance between quality and cost.

Whether legislation will be brought in to guard against the dangers of high-formaldehyde MDF remains to be seen. But in the meantime we must all follow our consciences and our business instincts. I for one will not be tempted to follow a policy of short-term business gain, by introducing cheap but potentially dangerous materials.

Contact

Jazolo 01604 813 050
www.jazolo.com