

# Can Hot Melt Adhesive Film Replace Formaldehyde-rich Trialdehyde Adhesive

Detail Introduction :

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Formaldehyde is a kind of decoration pollution known to the public today. Under the propaganda of formaldehyde removal agency, formaldehyde has become famous and a heinous public enemy of the whole people. Today we are going to talk about formaldehyde.

The Main Source of Formaldehyde

In decoration, formaldehyde can come from many decoration building materials, such as putty powder, floors, cabinets, curtains, wall coverings, etc. However, the primary source of formaldehyde is the release of decorative panels; that is, furniture and floors made of wood-based panels are the primary sources of formaldehyde release. This is mainly due to the use of an adhesive product in this type of sheet, which is formaldehyde glue.

What is formaldehyde glue?

Formaldehyde adhesives are three types of adhesive products produced with formaldehyde as one of the raw materials, namely urea-formaldehyde resin adhesives, melamine-formaldehyde resin adhesives, and phenolic resin adhesives.

Melamine formaldehyde resin adhesive is often used to impregnate the surface of impregnated paper and laminate wood floors because of its excellent wear resistance. Phenolic resin has excellent waterproof performance, and the free phenol in it is much more harmful than free formaldehyde, so it is often used in the production of outdoor panels. Therefore, among these three aldehyde-based adhesives, the urea-formaldehyde resin is the most used for interior decoration boards, and it is the lowest cost of urea-formaldehyde resin. Therefore, it is basically certain that urea-formaldehyde resin is the main culprit of indoor decoration pollution.

Can hot melt adhesive film replace formaldehyde adhesive?

In fact, because of the problem of formaldehyde, researchers have been trying to find alternatives to formaldehyde glue. For example, there are certain commercialized soybean glue and isocyanate glue that can replace formaldehyde glue. However, due to many factors such as cost, it has not been widely used and promoted, and only a few companies are doing it.

As an environmentally friendly adhesive product, it is unlikely that hot melt adhesive film can replace trialdehyde adhesive at present, and the cost is the primary obstacle. Secondly, the hot melt adhesive only try to play a role in the production of plywood, and there is no technological possibility in the production of particleboard, particleboard and fiberboard. Therefore, from the perspective of substitution, we still need to start with liquid adhesives. The role of hot melt adhesive film in the sheet metal industry can only be limited to some applications with special needs, such as sheet veneer.

Will trialdehyde glue still develop in the future?

Although there is a formaldehyde problem, objectively speaking, formaldehyde has been excessively demonized in the public's cognition. When the concentration of formaldehyde in the air is lower than the standard value, it has no effect on people's normal life. Many publicized cases of leukemia due to decoration materials may be known as formaldehyde, a volatile substance, and there may be some more harmful free substances in decoration materials, such as toluene, methanol, etc. However, the public's awareness of them is relatively insufficient.

The existence of trialdehyde glue is especially reasonable, and its excellent comprehensive performance and low cost are its unshakable foundation. In fact, it is not very technically difficult for trialdehyde glue to produce adhesive products with low free formaldehyde. The main problem is that some unscrupulous manufacturers have made products that do not meet the free formaldehyde standards in the market. I believe that this situation will gradually improve with the integration of the industry in the future.

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