

Grasp these factors, and you can make the bond m solid

Detail Introduction :

Many people using hot melt film lamination will encounter a variety of bonding problems, such as sticking on one side of the sticky, originally good bonding, but open glue after some time. The reason for these problems is that there is no certain method.

Choosing the right type of adhesive film is the first element

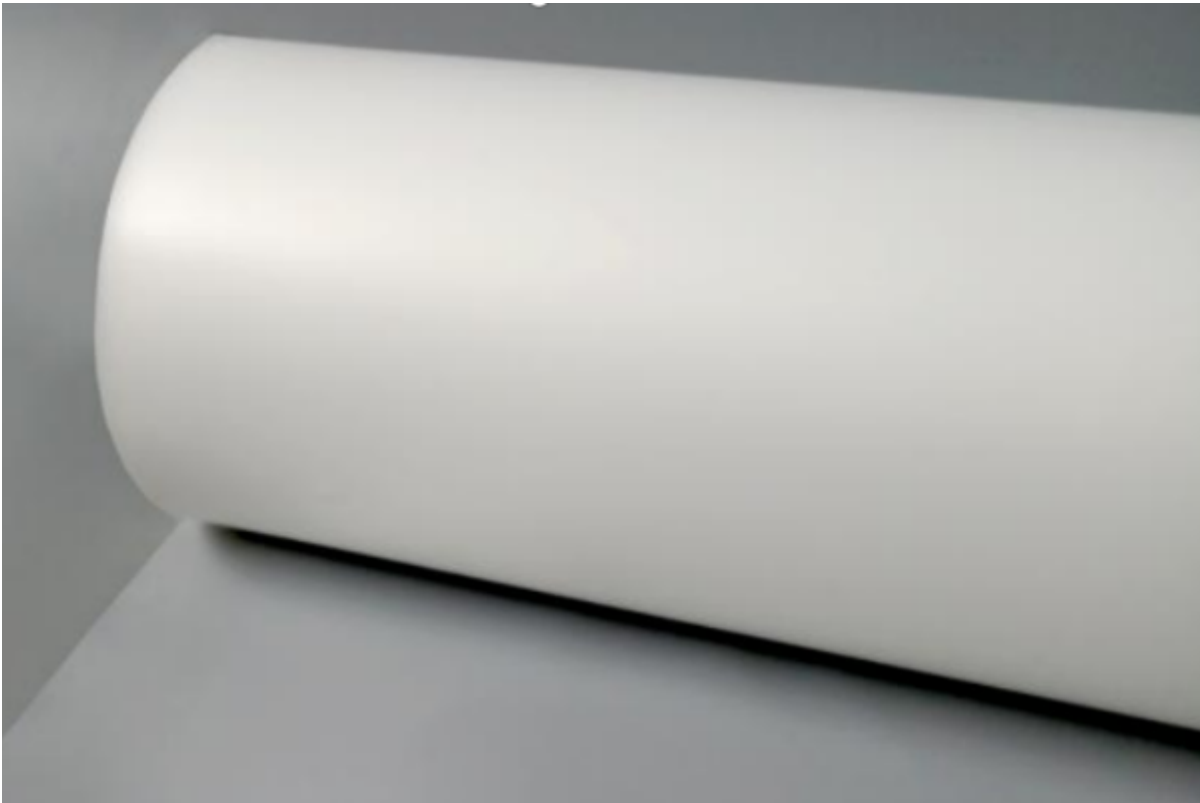
There are many kinds of hot melt adhesive films, and there is no one adhesive film that can bond all materials. If you have been using one type of film for bonding one type of material and now you have a new material to bond, you will need to retest the applicable film, and the original film may not be able to bond for the new material.

It is important to adjust the temperature of the hot press in place

Hot melt film is an adhesive that needs to be heated and melted, so the heating temperature is a must. However, customers often use it at too low or too high a temperature, leading to poor bonding.

When the temperature is too low, it is understandable that the hot melt adhesive film does not melt sufficiently, and naturally, it does not work well. What happens when the temperature is too high? When the temperature is too high, it will lead to excessive melting of the hot melt adhesive. The fluidity of the melted hot melt adhesive will be greatly increased, which will easily lead to the problem of glue penetration. The adhesive will penetrate too much to the inside of the bonded object and appear through the adhesive, leading to poor bonding.

Many customers use a large drum laminating machine. It is particularly prone to such problems. The temperature control sensor of the big drum laminator is often inside the drum, while the laminating temperature is on the surface of the drum, which leads to the situation that the display temperature and actual problem are not equal. The solution is to buy an infrared temperature measurement gun, and measure the temperature of the surface of the drum.



Hot pressing three elements, one can not be missing

Temperature control, two other factors should also pay attention to is the pressure and time. Temperature, pressure, and time are the three elements of hot pressing that we often talk about, and in the process of laminating, none of these three elements should be missing.

Hot pressing pressure can make the adhesive in the heat melt after the better spread. No pressure will not make the adhesive melting and can not fully contact the bonded object, resulting in poor bonding. Then the pressure is too high. On the one hand, it will lead to the problem of glue penetration. On the other hand, it may damage the nature of the bonded material itself. For example, if the bonded material is foam or soft material, too much pressure will crush the substrate itself, losing its value.

The same applies to the hot pressing time, which should not be too short or too long but should be appropriate according to the parameters of the specific hot melt adhesive film to choose the right time. Too long will melt the glue too much. Too short time glue is too late to melt, which will lead to poor bonding.

Please pay attention to some special properties of the bonded material itself

There is some bad bonding situation because the bonded material itself has special properties, and the bonding operator did not pay attention to these characteristics lead.

If there are some materials with high moisture content, then in the process of hot pressing, there will be a problem of water vapor. In the case of pressure, water vapor is not well released, forming bubbles, resulting in poor bonding. It may be necessary to take sectional pressure when compounding, appropriate pressure relief at a specific time, the bubbles will be removed to go, and then repeat the pressure.

Then some materials are not very flat, or there is a certain amount of thermal stress during hot pressing, there will be a certain degree of rebound after the pressure release. The hot melt adhesive needs to wait for the adhesive to cool and harden before the bonding strength can be formed, so once the rebound occurs, the adhesive has not yet cooled and hardened. Of course, it will cause poor bonding. This time it is necessary to add a cold-pressing step after the hot pressing so that the hot melt adhesive cools down quickly to form a better bonding strength.

The key point is that you need to adjust your process flexibly according to the bonding material to find the best process. If you can pay attention to this point, it will help you compound more firmly. If I have any say that is not comprehensive, welcome to add.

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