

Which Form of Hot Melt Adhesive Film Bond Failure Can Indicate That the Bond is Firm?

Detail Introduction :

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When we test the strength of the hot melt adhesive film to the material, we need to do a tensile test on the adhesive layer. Then we will judge the quality of the adhesive to the fabric according to the damage of the adhesive layer.

The damage of the adhesive layer is divided into four types according to the regulations. Namely, the damage by the adherend, the cohesive damage, the interface damage, and the cohesive interface mixed damage. When we use hot melt adhesive film to bond materials, the test damage that occurs is nothing more than these four forms.

Destruction form of the adhesive layer

Among all the four failure modes, the destruction of the adherend is the most desirable to be seen by the tester because it indicates that the strength of the adhesive bond is already higher than that of the adherend material itself, that is to say, the adhesive strength The bond strength must be able to meet the demand. Therefore, the destruction of the adhesive is the best form of failure, indicating that the adhesive is the best. Besides cohesive failure, cohesive failure refers to the separation of the adhesive in the cured layer of the adhesive; that is, the glue itself is torn apart. If the test result is a cohesive failure, it means that the strength of the adhesive itself is less than the strength of the bond. At this time, it depends on whether the strength can meet the original standard. Cohesive failure is not a common form of bonding failure as our bonds are typically very thin.

Next, we talk about interfacial damage. Interfacial damage refers to the separation of adhesive and material at the interface. Interfacial failure of the bond usually indicates that the bond has failed.

The last kind of failure is the cohesive interface mixed failure, which is actually a relatively common failure, that is to say, the strength of the bonding is equivalent to the cohesive strength of the glue itself, so there are two kinds of failures.

Now, do you have a deeper understanding of the judgment of the bonding strength of hot melt adhesive?

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