# Whether the Hot Melt Adhesive Film Can Stick or Not Related to the Surface Free Energy of the Material

Detail Introduction :

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## Whether the Hot Melt Adhesive Film Can Stick or Not is Related to the Surface Free Energy of the Material

As we mentioned earlier, the damage form of the adhesive layer is closely related to the bond strength of t melt adhesive film. Many factors affect the bonding strength of hot melt adhesive films, but there is one fac researchers generally pay more attention to. As long as they study bonding, they will pay attention to this f surface free energy of the material.

Surface-free energy is the embodiment of the intermolecular force on the surface of an object and is close to the wetting performance of the solid surface. The wetting performance is a factor that directly affects the quality of the adhesive. It can be said that the easier the glue is wetted on the surface of the material, the e to integrate with the material, and the better the glue will bond to the material. . Of course, extremes must reversed, and wetting too well is not enough, because the glue may penetrate into the material before curi will cause glue shortage and poor adhesion, so the wetting characteristics need to be kept in a relatively w good range.

How is the surface free energy of material generally measured? Generally, it is calculated by measuring th angle of the material to a specific liquid and then using the formula. The specific liquid is generally selected water, glycerin, and the like.

The contact angle is measured by dropping a droplet on a flat, level solid surface placed horizontally when droplet reaches a stable form. The intersection point of the solid, liquid, and gas phases is the tangent of th gas interface, and the angle between the tangent and the solid-liquid interface is the contact angle.

Through the measurement of the contact angle, people can determine the size of the surface free energy o material so as to understand the wettability of the material to a certain liquid. This is why two liquids with diametrically opposite properties, glycerol and water, are generally used to measure contact angles.

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