

### UV Adhesive

1. Comply to the newest environmental protection regulations.
2. The hardness of the resin is between Shore A 00 ~ D50.
3. Temperature resistance can reach to 120~170°C.
4. It does not affect the oscillations frequency.
5. It is thixotropic and no overflow will occur after dispensing of adhesive.
6. It has colors for easy identification to manufacture process control.
7. It could be discoloration by temperature changing or light changing.



### Modified Silicone Adhesive

1. Comply to the newest environmental protection regulations.
2. Fast drying surface from 3~20 min.
3. The bonding strength is as great as the photo-curing adhesive and no additional equipment is required.
4. Some of products comply to the UL 94V-0 specification .
5. The product does not contain tin catalyst, which meets environmental protection regulations.
6. Product contains fluorescent detection function.



### One-Component Epoxy Resin

1. Comply to the newest environmental protection regulations.
2. Cure at 80° C in short time of 10~15min.
3. Temperature range can reach from -40~150°C, and it can be reflow soldered twice.
4. High bond strength and can pass the drop test without crack.
5. It is thixotropic and no overflow will occur after dispensing of adhesive.
6. Product contains fluorescent detection function.



### Two-Component Acrylic Adhesive

1. Comply to the newest environmental protection regulations.
2. It is especially designed for many low surface energies, which are hard to bond such as PP, PE, POM materials.
3. The temperature range is from -40~120°C and it has passed high temperature and high humidity test.
4. After applied adhesive on the substrates, it can be fixed quickly and shows high initial bonding strength, and passes the drop test without cracking.
5. It is thixotropic and no overflow will occur after dispensing of adhesive.
6. Low odor formula, which has high tolerance in production environment.



Product Features of Everwide

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## Adhesive Applied

in the micro-speaker and microphone module industry





### Adhesive applied in the micro-speaker and microphone module industry

Since more and more high-tech multimedia products focus on sound quality, power and thickness, this series of adhesives could help your products to have superior performance in term of high power and flat frequency response curves. The series products also produce high-quality polyphonic ringtones, which are suitable for the most high-end and mid-range communication equipments. popular such as mobile phones, tablet and notebook and multimedia products. Adhesive could be applied on the product for bonding, fixing, reinforcement components. It can also be used for waterproof and sealing purposes.

This adhesive material is suitable for the manufacturing high-quality electroacoustic components (buzzers, electromagnetic buzzers, piezoelectric buzzers, electromagnetic buzzers, alarms, speakers, small speakers, micro speaker, thin film speakers, cone-type speakers, ellipse speaker, square speaker enclosures, speaker part enclosures, microphone, condenser microphone, electret condenser microphone ...). We have developed UV adhesives with unique formula by combined with the newest technology and cooperated with our team members with professional backgrounds. Everwide also use the most advanced equipments and highly skilled operations to develop product solutions that are suitable for the electronics industry. We have ample practical experiences and can provide high-quality and products-related and related application technical services. The latest product lines also comply to the latest environmental protection regulations as well as push the performance of products to the greatest aspect.

Everwide's main products in acoustics are photo-curing adhesive and modified silicone and high-performance epoxy resin, Let's compare the features of each resin :

Resin Type	Curing Mechanism	Product Advantages	Product Disadvantages
Photo-Curing Adhesive	Ultraviolet or visible light	Extremely fast cure time with very high bonding strength. It is easy and great for process control with high temperature resistance, and it is environmentally friendly.	Requires additional investment in UV curing equipment and the price of the product is higher.
Modified Silicone	Moisture curing	One-component, no additional equipment is required.	Long curing time and requires a certain bottleneck in the working process.
One-Component Epoxy Resin	Heat curing	Suitable for many types of substrates, high bonding strength and great chemical resistance.	Requires additional investment in heating oven equipment and the price of the product is higher.
Inorganic Silicone	Moisture curing	One-component, no additional equipment is required, thermal resistance is more than 200°C.	Poor bonding strength to plastics and poor chemical resistance.
Cyanoacrylate Adhesive	Moisture curing	Short curing time and no additional equipment is required.	The bonding strength varies greatly. The production stability performance may be low as affected by the weather.
Hot Melt Adhesive	Heat curing	Fast pre-cure and no additional equipment is required.	The bonding strength is not high and the stability is low due to the environmental weather.
Solvent-Based Adhesive	Cured by heat after solvent volatilized	Low price and long shelf life.	It has long cure time with a low bond strength and unpleasant smell. It is not environmentally friendly.
Anaerobic Adhesive	Anaerobic state and reactions of metal ions	One-component and no additional equipment is required.	It has long cure time and it is restricted to be applied on the metal surface. It has poor stability.

Our best and comprehensive products are offered for all applications in the speaker industry. The product line is described below :

#### Application 1

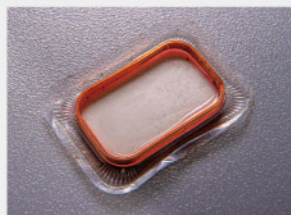
##### Adhesive bonding of the voice coil with the diaphragm made of various materials

**Product Feature:**

- \* High bond strength after curing and can achieve the broken sound level of the diaphragm film material.
- \* The hardness is between Shore A20 ~ Shore D50.
- \* Low curing energy: 1,000~1,500mj/cm<sup>2</sup>.

**Product Model:**

- \* GM426 Series Photo-curing adhesive
- \* GM630 Series Photo-curing adhesive



#### Application 2

##### Adhesive bonding of the diaphragm with the frame made of various materials

**Product Feature:**

- \* The bonding strength is medium after curing and it can support the diaphragm unchanged.
- \* The hardness is between Shore 00 5~ Shore A50.

**Product Model:**

- \* GM597 Series Photo-curing adhesive
- \* GM674 Series Photo-curing adhesive



#### Application 5

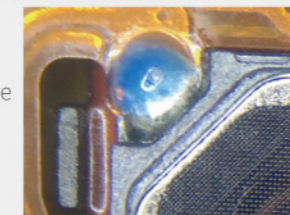
##### Application for reinforcement of welded wire

**Product Feature:**

- \* The resin exhibits excellent surface drying time after curing, which with high thixotropy and non-sagging.
- \* Excellent adhesion to wires, high flexibility and resistance to bending and pulling.

**Product Model:**

- \* GM592 Series Photo-curing adhesive



#### Application 6

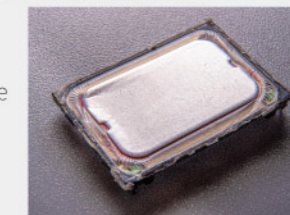
##### Bonding of audio diaphragm with vibrating diaphragm (dome bonding)

**Product Feature:**

- \* The resin exhibits excellent surface drying time after curing, and it has medium viscosity and no overflow .
- \* Excellent adhesion to aluminum foil, high flexibility and resistance to bending and pulling.

**Product Model:**

- \* GM638 Series Photo-curing adhesive



#### Application 3

##### Adhesive bonding of the magnetic cylinder with the frame made of various materials

**Product Feature:**

- \* The bonding strength is high after curing with high thixotropy and non-sagging.
- \* The hardness is between Shore D50~ Shore D70 with high flexibility drop test is performed.

**Product Model:**

- \* FB004 Series Photo-curing adhesive
- \* FS132 Series Modified silicone



#### Application 4

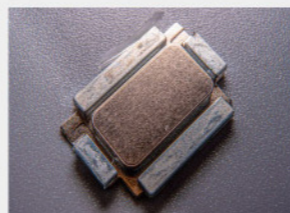
##### Adhesive bonding of the magnetic cylinder with the powerful magnetic

**Product Feature:**

- \* The bonding strength is high after curing with high thixotropy and non-sagging. It is suitable for bonding of ultra-small area and the thin adhesive can be cured completely.
- \* The hardness is between Shore D50~ Shore D70 with high flexibility drop test is performed.

**Product Model:**

- \* JD148 Series One-component epoxy
- \* JD971 Series One-component epoxy



Beside of micro speakers detailed application introduction above, Everwide also produce FS332 series for the waterproof purpose of micro speakers and various kinds of products for the application of mini microphones. In additional, there are JB913 one-component epoxy resin series with high temperature resistance. It can be recommended for titanium alloy diaphragms and voice coils of high-powered speakers.

