

MS5312

Moisture Curing Modified Silicone Adhesive

MS5312 is a versatile structural sealant designed for high-strength and high-toughness applications in electronic components. It effectively bonds and fixes various materials such as metal, glass, PVC, PC, epoxy, nylon, and acrylic. This environmentally friendly product boasts excellent properties like non-toxicity, odorlessness, pollution resistance, anti-corrosion capabilities, anti-aging properties, and resistance to corona effects.

FEATURE

- No corrosion to the base material, resistant to acid, alkali, water and other corrosion
- Environmentally friendly, non-toxic, good bonding performance
- Good vibration fatigue resistance and corona resistance

APPLICATION

- Bonding of metal, PC, PVC and other materials
- Bonding, fixing and vibration-proofing of electronic components, sealing and bonding in high-temperature and cold-resistant environments

- For the structural design of the substrate bonding joint, it is recommended to ensure that the substrate load stress is designed in the direction of the maximum strength that the adhesive can bear, so as to ensure the maximum tensile, compression, shear or peel strength.
- Good curing results of all adhesives are related to many conditions, among which the change of working environment is also a very important influencing factor, so in order to obtain the desired curing effect, it is recommended to communicate with GLUDITEC engineers to adjust the use process according to the situation of the production line.
- During the adhesive curing process, it is recommended to use a matching fixture to support the parts, and do not cause the adhesive to fail to exert its maximum bond strength due to the movement of the adhesive substrate and the misalignment of the force when it is not cured.

TYPICAL UNCURED PROPERTIES

Properties	MS5312
Chemical base	Special modified silanes
Appearance	Liquid
Color	Translucent
Viscosity @ 25°C, mPa.s	20,000 ~ 50,000
Solid content, %	100
Specific Gravity @ 25°C	1.15 ~ 1.30

TYPICAL CURING PROPERTIES

Properties	MS5312
Tack Free Time, @ 25°C, 55 RH%, min	5
Initial Curing Time @ 25°C, 55 RH%, min	10
Full Curing Time @ 25°C, 55 RH%, hours	48

DIRECTION OF USE

- The oxide layer, dust, moisture, oil, etc. on the surface of the substrate will have a certain impact on the adhesion of the substrate, in order to obtain the best bonding performance, it is recommended that the surface of the bonded material should be cleaned.

TYPICAL CURED PROPERTIES

Properties	MS5312
Hardness (Durometer), Shore A	50
Shear Strength, PC vs PC, MPa	≥3.0
Shear Strength, ABS vs ABS, MPa	≥3.0
Shear Strength, PMMA vs PMMA, MPa	≥3.0
Shear Strength, PET vs PET, MPa	≥3.0
Shear Strength, Copper vs Copper, MPa	≥3.0
Shear Strength, SUS vs SUS, MPa	≥3.0
Shear Strength, PC vs PC, MPa	≥3.0
Shear Strength, Glass vs Glass, MPa	≥3.0
Shear Strength, Al vs Al, MPa	≥3.0
Aging test, SUS vs SUS, MPa	
Double 85 24h	≥4.0
Double 85 168h	≥4.0
Double 85 500h	≥4.0
Double 85 1000h	≥4.0

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Properties	MS5312
Surface Resistivity, ohm	$\geq 3.0 \times 10^{13}$
Volume Resistivity, ohm.cm	$\geq 1.5 \times 10^{13}$

STORAGE AND SHELF LIFE

This product should be kept without any possibility of moisture exposure. Replace the lid immediately after use. Shelf life of this product is six months when stored in dark place below 14~34°C in original, unopened containers.

CAUTION

- Please keep it away from children, and use necessary protective equipment, such as respirator masks, rubber gloves, labor protection clothing, etc., when using this product, to prevent unintended adverse effects.
- If this product gets on the skin, wash it off immediately with soapy water.
- If it gets on your eyes, wash with plenty of water before seeking medical attention. Please refer to the MSDS of this product for details.
- When using this product, the unused chemicals should not be discarded at will, otherwise it may cause accidents, please refer to the MSDS about waste disposal information of this product.
- When using this product, there is a risk that the product used outside the box may be contaminated during use. To avoid contamination of unused glue, do not pour any glue back into the original packaging. The Company will not be responsible for products that have been contaminated or that have been stored in an inappropriate manner as mentioned above.

The data contained in this bulletin is provided only as a guide for evaluation/consideration. These material characteristics are typical properties that are based on a limited number of samples tested in the laboratory. We cannot assume responsibility for results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any product or method. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide.