Shin-Etsu Silicone

Self-adhesive LIMS
(Liquid Silicone Rubber Injection Molding System)
KE-2097 Series, KE-2098 Series

LIMS with adhesion to various resins and metals

- Primerless
- Adhesive
- Short time molding
- Automated molding
- Reduced operating cost
- Flashless, runnerless

Features

- **Polycarbonate, polybutylene terephthalate, and metal can be adhered without primer.**
- **Reduction of processes and cost by eliminating the need for adhesives and post cure.**

Applications Composite parts of silicone rubber and resins and metals




■General properties

Grade		PC adhesive, FDA compatibility			PA adhesive, metal adhesive		
Parameter \ Product name		KE-2097-40-A/B	KE-2097-50-A/B	KE-2097-60-A/B	KE-2098-40-A/B	KE-2098-50-A/B	KE-2098-60-A/B
Appearance		Translucent	Translucent	Translucent	Translucent	Translucent	Translucent
Viscosity 0.9s-1	Pa·s	770/870	600/620	610/580	1,040/1,150	1,100/1,210	940/975
Curing speed at 130°C MDR	T10 (s)	25	23	25	25	25	23
	T90 (s)	46	43	63	54	46	48
Standard molding condition	Primary cure	150°C x 5 min	150°C x 5 min	150°C x 5 min	120°C x 10min	120°C x 10min	120°C x 10min
	Post cure	No need	No need	No need	No need	No need	No need
Hardness Durometer A		40	50	60	40	49	59
Density at 23°C	g/cm³	1.13	1.12	1.14	1.14	1.14	1.14
Tensile strength	MPa	9.7	10.6	9.7	9.7	9.6	8.4
Elongation at break	%	710	620	380	650	600	410
Tear strength Crescent	kN/m	28	42	45	33	47	39
Rubber hardness lineup Durometer A		30 - 60			40 - 60		

(Not specified values)

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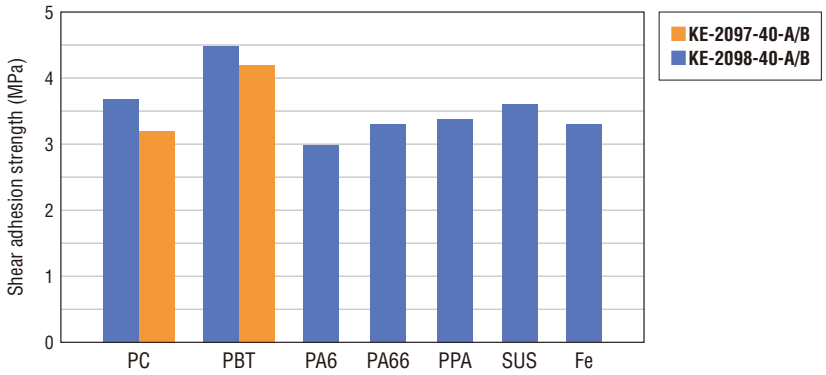
Shear adhesion strength to various adherends



✻ This value is not a specification value or guaranteed value.

Handling precautions

1. Seal container tightly and store in a cool, dark place (25°C or below, out of direct sunlight) with good ventilation. Keep away from heat and flame because the primers used may be classified as flammable hazardous materials.
2. LIMS liquid silicone rubbers may not cure properly if they come in contact with certain substances, including amines, sulfur, organophosphorus compounds and organotin compounds. If there is a possibility of curing inhibition, the user should perform a test to determine whether the product will cure properly.

Some curing inhibitors

- Chloroprene and other synthetic rubbers
- Sulfur compounds
- Soft PVC
- Amine-cure epoxies
- PVC insulating tape
- Soldering flux that contains rosin

3. Mixing Liquid B with alkaline substances produces flammable hydrogen gas, so handle with caution.

Cautions in using self-adhesive liquid silicon

1. Even among the same resin materials, some materials are not suited to addition reactions of silicone rubbers or cannot sufficiently exert adhesion depending on their method of polymerization, degree of refining and types of additive and resin. When designing, check the resin to be used in advance.
2. In the situations where the resin surface is dirty, clean the surface with a solvent or similar.
3. As for polyamide resin, it is recommended to dry the resin before molding since it has high water absorption properties. Moreover, attention must be paid to the molding procedure and conditions in the situations where heat treatment and humidity conditioning are performed to acquire dimensional stability.
4. The release properties may vary depending on the mold material and condition of the surface (plating), so be sure to test prior to use.

Safety and hygiene

1. This product causes serious eye irritation and may cause skin irritation. When handling the product, be sure to avoid contact with the skin and mucous membranes by wearing protective glasses and protective gloves. In case of skin contact, immediately wipe off with dry cloth and then flush thoroughly with running water. In case of accidental eye contact, flush immediately with plenty of clean water for at least 15 minutes and then seek medical attention. Contact lens wearers must take special care. If the products get into the eye, the contact lens may become stuck to the eye.
2. In aconfined space with poor ventilation, please wear a protective mask. It is recommended to provide local ventilation. If vapors are inhaled and victims feel uncomfortable, move immediately to an area with fresh air. When you put non-hardening substance into the discard, silica and other powder generate. So you should wear a protective mask.
3. Keep out of reach of children.
4. Please read the Safety Data Sheets (SDS) before use. SDS can be obtained from our Sales Department.

ShinEtsu

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