Casting Adhesive Sealant Elastomer

BEPU 6608 A/B Potting material

The Solutions that Create Value!

Polyurethane Encapsulant

Apply for Electronic Components

Product features

The BEPU 6608 A/B is a solvent-free, two-component casting resin, based on Polyurethane. The resin (A) consists of organic compounds with hydroxyl-groups whereas the hardener (B) is based on isocyanates. By mixing both components in a ratio by weight of 100:16 a semi-tough casting resin is achieved via chemical reaction. The product exhibits no measurable change in volume after curing.

The resin is used for filling, coating and casting. The product adheres well to metals and plastics. It contains flame retardant additives. According UL-94 tested with V0.

- Low viscosity, fast curing in several hours
- Excellent performance on low-temperature and aging
- Excellent and stably electrical dielectric
- Very low Water absorption
- Good adhere to most metals and plastics

Applications

It is specifically formulated for automotive sensors, switches, transformers and other electrical devises requiring environments protection.

Technical performance

Item		Unit	Method	BEPU 6608 WT	BEPU 6608 BK
Appearance	A	---	Visual inspection	White liquid	Black liquid
	B		Visual inspection	Brown liquid	
	A+B		Visual inspection	White liquid	Black liquid
Viscosity	A	25℃ mPa·s	GB/T 10247-2008	6500-10500	6500-10500
	B		GB/T 10247-2008	50-250	50-250
	A+B		GB/T 10247-2008	700-1300	700-1300
Density	A	25℃ g/cm3	GB/T 15223-1994	1.65±0.05	1.65±0.05
	B		GB/T 15223-1994	1.21±0.05	1.21±0.05
	A+B		GB/T 15223-1994	1.58±0.03	1.58±0.03
Mix ratio		By weight	----	A: B=100:16	
Pot life		25℃ min，150g	GB/T 10247-2008	10-20	10-20
Initial curing time		25℃, 55%RH,hr	GB/T 10247-2008	4-6	4-6
Cure condition		℃/h，100g	GB/T 10247-2008	25℃/24h or 80℃/2h	

According to the quantity of mixing glue, 174g.

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Properties after cured

Item	Unit	Method	BEPU 6608-WT	BEPU 6608-BK
Hardness	Shore-D	GB/T 531-2008	50 ± 5	50± 5
Dielectric strength	25℃，kV/mm	GB/T 1695-2005	16	16
Flammability	UL-94	ANSI/UL-94-1985	V-0 (E 340199)	
Thermal conductivity	W/m.K	GB/T10297-1998	0.85±0.03	
Volume resistivity	25℃，Ω·cm	GB/T 1692-92	$2.1*10^{13}$	$2.1*10^{13}$
Dielectric constant	50Hz，25℃	GB/T 1693-2007	3.42	3.42
Elongation	%	GB/T 528-2009	50%	50%
Tensile strength	25℃,Mpa	GB/T 528-2009	>7	>7
Shear strength	25℃,Mpa	GB/T 7124-2008	Fe: >2.5Mpa Al: >2.1Mpa	Fe: >2.5Mpa Al: >2.1Mpa
Glass transition temperature	°C	DSC	15	15
Loss factor	25°C@1MHz	GB/T 1693-2007	0.005	0.005
Curing shrinkage	%	HGT 2625-1994	1.0	1.0
Coefficient of linear expansion	ppm	GBT 20673-2006	<Tg, 45 >Tg, 102	<Tg, 45 >Tg, 102
Working temperature range	°C	GBT 20028-2005	-50 ~ 150	-50 ~ 150

Process with dispenser

preparations

material preparation

Strilling in the original drum, then pouring into dispenser.

To avoid bubbles inside of finished products, both tank should be usually kept 40 to 60 minutes under the vacuum pressure 0-2mmHg.

Max tolerance

Mixing proportion of deviation may affect mechanical properties, tolerance should be less than 1%.

other

Through the production, should always maintain the tank airtight. the compressed gas should be dry If need, otherwise part B will become sticky, and influence the mechanical properties.

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Process with Manual

1. Reclaiming: material a of this product contains functional filler powder, and there will be clear liquid on the upper layer of the glue liquid. Before use, it is necessary to mix the glue liquid of the original package evenly, and then reclaim the material for use. After the reclaiming, the original package shall be sealed in time to prevent excessive contact with water. After exposing the rubber to air for a long time, it may lead to the bubbling of AB mixture. If possible, the raw packaging of material a can be placed in a heat preservation environment of more than 30 degrees.
2. Operation items: material B will absorb water and hydrolyze when exposed to the atmosphere. The phenomenon is turbidity until caking. Material a also needs to be stored away from moisture to avoid excessive bubbles during solidification. The environment of curing process should be controlled as low as possible, and the relative humidity should not exceed 60%
3. Preheating: the device to be poured should be dried at 70-80 ℃ for 1-2 hours. It can also reduce the temperature and extend the heating time to remove moisture from the device. The viscosity of bepu 6608 will increase at low temperature, and the material can be preheated to 25℃~ 45℃, which is easy to use.
4. Defoaming: vacuumize the a \ B drum and mix it at the same time to ensure that the a \ B solution is vacuum and free of bubbles before mixing.
5. pouring: mix the mixture into the device through the static mixer, the gel time is about 40mins.
6. Curing: 25 ℃ / 6 hours, 24 hours for complete curing. The ambient humidity should be less than 70%, and the curing time should be extended when the temperature is low.

First-Aid Measures

Description of first aid measures
Remove contaminated clothing.

If inhaled:
If difficulties occur after vapour/aerosol has been inhaled, remove to fresh air and seek medical attention.

On skin contact:
Wash thoroughly with soap and water.

On contact with eyes:
Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.

On ingestion:
Immediately rinse mouth and then drink plenty of water, do not induce vomiting, seek medical attention.

Storage

- The opened drum should be sealed, avoid moisture, and be used out in a short time.
- Resin:

Frost-sensitive	no
Recommended storage temp.	15°C to 25°C

Shelf-life	12 months in original packaging

- Hardener:

Frost-sensitive	yes
Recommended storage temp.	15°C to 30°C (not < 10 and > 50 °C)
Shelf-life	6 months in original packaging

Packing and transportation

- Bepu 6608 BK (Black),
- Bepu 6608 WT(White),
- Part A: 25 kg/Barrel; Part B: 4 kg/Barrel
- Transported as general chemistry

Security

Here no include the whole safety information. Before using, please read the technical sheet, MSDS and the packing label. You can get these information from BEGINOR and distributors, also call 021-64243697. About waste disposal, please according to the MSDS or local regulations.

Technical advice

Whether verbal, in writing or by way of trials - is given in good faith but without warranty, and this also applies where proprietary rights of third parties are involved. It does not release you from the obligation to test the products supplied by us to their suitability for the intended processes and uses. The application, use and processing of the products are beyond our control and therefore, entirely your own responsibility. Should in spite of this, liability be established by us and used by you. We will, of course, provice products of consistent quality within the scope of our General of Sale and Delivery.