BESIL® 8230 A/B

The Solutions that Create Value!

High thermal conductive Silicone Encapsulant

TWO COMPONENT, LOW VISCOSITY

High Performance & Thermal Conductivity

Flame retardant UL 94-V0 elastomer

FEATURES

BESIL 8230 is a two-part addition cure RTV. Comparing to condensation cure system, BESIL 8230 has following features:

- long potting life, But rapidly cured under heat.
- Contain all the ingredients needed for cure with no by-products from the cure mechanism. Deep-section or confined cures are possible.
- Require no post-cure
- Two-part, 1:1 mixing ratio
- Medium viscosity Room temperature cure or rapid heat cure
- Addition cure system: no cure by-products
- Stable and flexible from -50°C(58°F) to +250°C (432°F)
- Flexible rubber - protects against mechanical shock and thermal cycling stress at components
- Excellent dielectric properties

APPLICATIONS

- Designed to protect against moisture, environmental attack, mechanical and thermal shock as well as vibration especially where good adhesion is required.
- Typical applications include: encapsulation of amplifiers, automotive electronic units, ballast, bleed resistors, connectors, flyback transformers, high voltage resistor packs, lifting magnets, power controllers, power supplies, radio frequency induction transformers and sensing devices.

HOW TO USE

Substrate preparation

All surfaces should be cleaned and degreased with a suitable solvent prior to potting. Care should be taken to ensure that all solvent is removed. For best adhesion, coat surfaces with BGX-706, following the instructions and precautions given for use of these products.

Mixing

- BESIL 8230 is supplied in lot matched kits consisting of Part A and Part B in separate containers. During long periods of storage, some of the filler may settle at the bottom of the containers and should be individually homogenised prior to use.
- The two components should be thoroughly mixed using a weight ratio of 1:1 until the mixture has a uniform colour. Vacuum de-airing is recommended. A residual pressure of 10-20 mm mercury applied for 2-5 minutes will sufficiently de-air the material.

How to apply

Being careful to avoid air entrapment, apply the encapsulant. Vacuum encapsulation is recommended for complex geometries. For information on appropriate dispensing equipment for your application, please contact Beginor marketing department.

Curing

BESIL 8230 should be cured using one of the following recommended schedules:
5 hours at 23°C, or 60 minutes at 70°C, or 30 minutes at 80°C, or 20 minutes at 100°C. Large components and assemblies may require longer times in order to reach the curing temperature.

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Compatibility

In some cases, BESIL 8230 may fail to cure to optimum properties when in contact with certain plastics or rubbers. Cleaning the substrate with solvent or baking slightly above the cure temperature will normally eliminate the problem. Certain chemicals, curing agents and plasticisers can inhibit cure. These include:

- Organotin compounds
- Silicone rubber containing organotin catalysts
- Sulphur, polysulphides, polysulphones and other sulphur containing materials
- Amines, urethanes, amides and azides.

TYPICAL PROPERTIES

Specification writers: These values are not intended for use in preparing specifications.

Please contact your local Beginor sales representative prior to writing specifications on this product.

Property	GB/T	ASTM	Unit	Value A/B
Colour (Part A/Part B)				Black /White
Viscosity at 23°C (Part A/Part B)[1]	10247-2008	D1084	mPa.s	950±200/950±200
Specific gravity at 23°C (Part A/Part B)	13354-92	D792	g/cm^3	1.35±0.05 /1.35±0.05
Catalysed, Mixed 1:1 by weight				
Viscosity at 23°C (Part A+Part B)[1]	10247-2008	D1084	mPa.s	950±200
Potting life at 23°C	10247-2008	D1084	mins	45±10
Gel time at 23°C	10247-2008	D1084	mins	120±20
Cure time at 80°C, 70°C			minutes	30, 60
Cure time at 23°C			Hour	4
Physical properties, cured 30 minutes at 150°C				
Colour				Light Gray or Dark Black
Specific gravity at 23°C	13354-92	D792	g/cm^3	1.35±0.05
Durometer hardness	531.1-2008	D2240	Shore A	40±5
Tensile strength	6328-86	D412	MPa	>1.0
Elongation at break	6328-86	D412	%	>60
Thermal conductivity	10297-1998	D2214	W/(m.K)	0.45
Volume coefficient of thermal expansion	20673-2006		ppm	230
Electrical properties, cured 30 minutes at 150°C				
Dielectric strength, 2mm thickness	1693-2007	D149	kV/mm	⩾20
Permittivity at 100Hz/100kHz	1693-2007	D150		3.00
Dissipation factor at 100Hz/100kHz	1693-2007	D150		0.009
Volume resistivity	1692-92	D257	Ohm.cm	1.1x10^{14}

1. Brookfield HAF, #2 spindle at 5rpm.

GB/T: The china national standard ASTM: American Society for Testing and Materials.

LIMITATIONS

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

PACKAGING AND STORAGE

- When stored at or below 35°C in the original unopened containers, this product has a usable life of 12 months from the date of production.
- Have to test if expired.
- BESIL 8230 is available in standard industrial container sizes. Other size should be approved.
- Part A: 25kg/pail, 250kg/drum; Part B: 25kg/pail, 250kg/drum.
- Besil 8230 Gray grade，part A，code：0105082；part B，code:0105083.
- Besil 8230 Black grade，part A，code：0105460；part B，code:0105461.

WARRANTY INFORMATION

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that Beginor's products are safe, effective, and fully satisfactory for the intended end use.
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