ExSil™ SB 1020-LT A/B
Translucent Self-Bonding Silicone Potting Compound

Revision: September 2026

ExSil™ SB 1020-LT A/B is a self-bonding translucent potting compound for the protection of electronics that need environmental protection utilizing a translucent material. ExSil™ SB 1020-LT A/B is a one-to-one mix ratio, two-part platinum addition cure silicone.

Typical Properties	Units	Values
Mix Ratio A:B (by weight)		1:1
Appearance		Translucent
Viscosity Part A	cP	6450
Viscosity Part B	cP	5183
Viscosity Mixed	cP	5683
Pot Life at 23°C	hr	7
Tensile Strength	MPa	2.58
Elongation	%	153
Durometer	Shore A	25
Specific Gravity		1.01
Dielectric Constant		3.6
Dielectric Strength	kV/mm	16.2
Dissipation Factor		0.004
Volume Resistivity	Ohm-cm	5.1×10^{14}

Note: These are typical properties and not specifications. Customers must qualify the material for efficacy and regulatory compliance for any given application.
*Cured properties were obtained by curing the product at 100 °C/60 min..

Features & Benefits

- Two-part system
- 1:1 mix ratio by weight or volume
- Translucent
- Low viscosity
- Long pot life
- Full deep section cure
- Self-bonding heat cure
- Electrically insulating
- Internal screening tests indicate performance consistent with UL 94 V-0 criteria

Applications

Protection of electronics that require self-bonding heat curable addition-cure silicone potting compound with no by-products during cure. This product is recommended for environmental protection and electrical insulation.

Processing, Fabrication, and Handling

MIXING AND DEAIRING | At the specified mix ratio by weight, accurately weigh Parts A and B into a clean, compatible container. Mix using qualified equipment (e.g., blade, static, centrifugal, or multi-shaft mixers) capable of producing a homogeneous mixture while minimizing heat generation. Excessive heat during mixing may prematurely initiate cure and should be avoided.

Following mixing, de-air the material under reduced pressure to remove entrapped air prior to cure. For assemblies with complex geometries, vacuum-assisted potting or an additional post-dispense deaeration step may be required to ensure complete wet-out and void-free encapsulation.

CURING | The recommended cure schedule is 1 hour at 100 °C in a forced-air oven. Cure time may require adjustment for assemblies with high thermal mass or when the material is dispensed into thick sections or enclosed geometries, as

Processing, Fabrication, and Handling

additional time may be required for internal components to reach the target temperature. Alternative cure schedules using lower temperatures may be suitable; however, cure conditions should be established through evaluation on representative parts to ensure complete cure and acceptable final properties.

POT LIFE | Based on snapback time, the material exhibits a pot life of ≥ 3 hours at 25 °C. Extended working times beyond this period may be achievable; however, the upper limit has not been established.

COMPATIBILITY | This material is compatible with most metals, plastics, and electronic components. Certain materials may inhibit cure of platinum-catalyzed silicones; compatibility should be verified prior to use.

HANDLING AND SAFETY | Users should refer to the safety data sheet for any hazards associated with this product. Proper PPE should be used with this product including, at minimum, safety glasses, and disposable lab gloves.

SHELF LIFE | Based on available data, the estimated shelf life is at least 6 months when stored at ≤ 25 °C and < 65% relative humidity in tightly closed containers. For partially used containers, purging with dry nitrogen after opening is recommended to maximize shelf life.

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