ExSil™ SB 1010-LT A/B

Low Temperature Cure
Self-Bonding Silicone Potting Compound

Revision: September 2026

ExSil™ SB 1010-LT A/B is a two-part platinum addition cure silicone electronics potting compound that has adhesion when cured to several metals, ceramics, and plastics. ExSil ™ SB 1010-LT eliminates the need for primers to obtain adhesion to a variety of substrates. The product also requires lower cure temperatures to obtain adhesion and has higher tensile strength to break than standard competitive products.

Features & Benefits

- Self-bonding at lower temperatures
- Soft & compressible silicone
- High elongation at break
- Flowable and heat-curable
- No cure by-products
- Platinum addition cure system
- Internal screening tests indicate performance consistent with UL 94 V-0 criteria

Applications

- Protection of electronic devices including transformers, automotive control units, ballasts, power control units, sensors, and other devices
- Stable and flexible from -50°C to +200°C
- Excellent dielectric properties

Typical Properties	Units	Values
Mix Ratio A:B (by weight)		1:1
Color Part A		Blue
Color Part B		Off white
Color, mixed		Blue
Viscosity, uncured mix	cP	12,500
Elongation	%	180
Tensile Strength	MPa	2.9
Durometer	Shore A	37
Specific Gravity		1.3
Dielectric Strength	kV/mm	15
Volume Resistivity	Ohm-cm	3.58×10^{13}
Dielectric Constant (100kHz)		3.01
Dissipation Factor (100kHz)		0.0046
Thermal Conductivity	W/mK	0.22

Note: These are typical properties and not specifications. Customers must qualify the material for efficacy and regulatory compliance for any given application.
*Cured at 100 °C/30 mins on aluminum, cohesive failure.

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 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

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Figure 1.

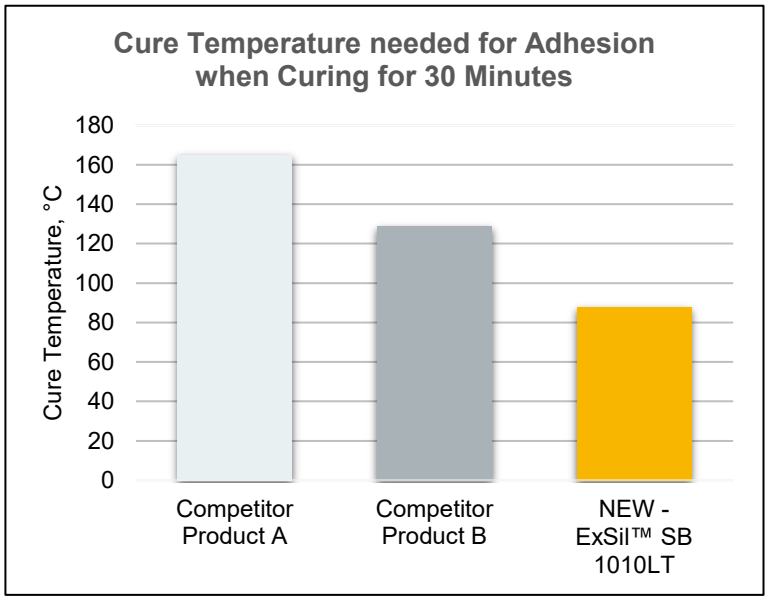
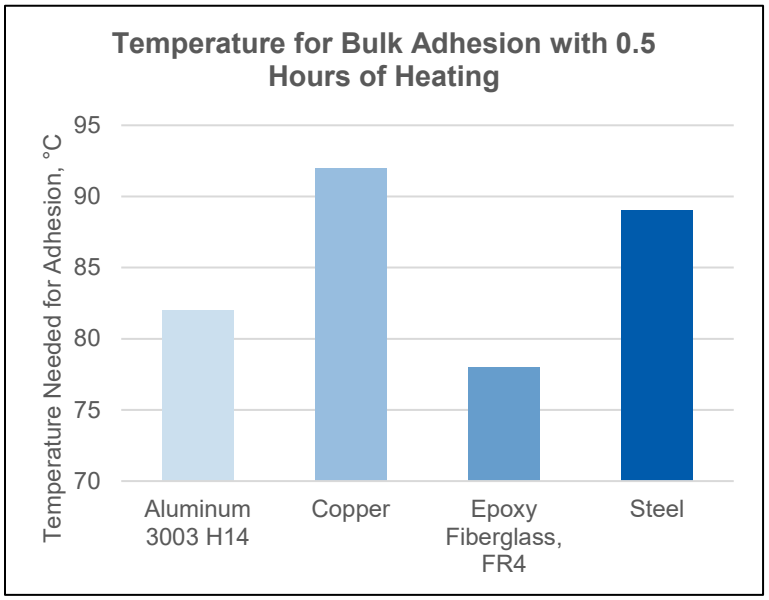


Figure 2.



Processing, Fabrication, and Handling (continued)

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 | 12 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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