

Enhanced protection for electronics

High-performance silicone conformal coatings offer reliable protection

Moisture. Vibration. Extremes of heat and cold. Printed circuit boards (PCBs) undergo a wide range of strains and stresses when installed in devices and put to use in the world. The NuSil™ brand, a global leader in silicones used in advanced technology applications, offers a family of silicone conformal coatings created to efficiently and reliably protect circuit boards to help ensure long operating life.

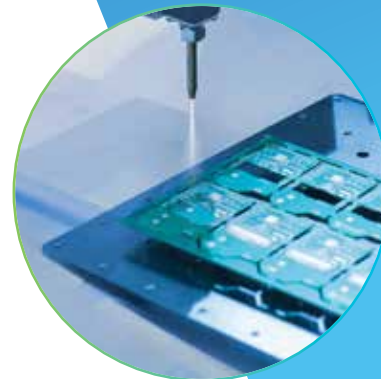
TODAY'S ELECTRONICS NEED SUPERIOR PROTECTION

Electronic components mounted on PCBs form the foundation of our digital world and are critical to the performance of everything from smartphones to avionics. Environmental risk factors include:

- **Temperature extremes:** In some applications, electronics can be exposed to extreme high and low temperatures
- **Moisture:** Delicate electronic connections can fail just from excess moisture or condensation
- **Dust and particles:** Even though typically enclosed in housing, even minute amounts of dust can lead to electrical failure
- **Vibration:** Electronics used in vehicles, aircraft or other equipment undergoing continuous, high levels of vibration

While epoxy, polyurethane or acrylics coatings protect many electronic components today, NuSil silicone-based conformal coatings offer several key advantages:

- They retain their elasticity through a much wider temperature range— typically -60° C up to 200° C
- Silicones have hydrophobicity offering a high resistance to moisture
- They have a low modulus and are electrically insulative, protecting the electronic components from vibration and shock





NUSIL SILICONE CONFORMAL COATINGS

NuSil silicone conformal coatings are a one-part, flowable, room-temperature-vulcanizing (RTV) silicone designed to deliver superior, long-term and reliable coating for both rigid and flexible printed circuit boards.

With NuSil conformal coatings, PCB manufacturers can help ensure that their circuit boards provide the operating life required for the digital devices that use them, regardless of the extremes of heat, cold and vibration which the devices may experience.

KEY CHARACTERISTICS

- Cures at room temperature within 24 hours upon exposure to atmospheric moisture
- Non-corrosive oxime cure system
- Electrically insulating
- Low viscosity ideal for use in spray or dip coating systems
- Coated PCBs can be handled shortly after coating

CUSTOMIZATION MASTERED

As with other NuSil silicones used for advanced technologies applications, our conformal coatings are off-the-shelf products and ready to use in your production systems—including existing production lines configured for silicone conformal coatings that are no longer available in the marketplace.

If standard formulations don't work as desired, we can formulate custom solutions that fit your process requirement, saving you time and money.

THE INDUSTRY LEADER IN SILICONE FOR ADVANCED TECHNOLOGIES

Our NuSil silicones have been trusted for nearly 40 years for use in the most demanding applications. Our best-in-class product lines are the choice across the aerospace, defense, optoelectronics and general electronics industries. Today, we have over 3,000 standard products that can be mass customized to help you increase electronics production throughput without sacrificing performance.

Contact NuSil to Get Started

The NuSil team is ready to supply you with the right silicone conformal coatings you need to deliver PCBs with the reliable performance and protection your customers require.

To learn more, visit www.nusil.com/conformalcoatings or contact NuSil experts today at advancedtechnology@nusil.com or **+1 (805) 684-8780**.

It is the sole responsibility of each purchaser to ensure that any use of these materials is safe and complies with all applicable laws and regulations. It is the user's responsibility to adequately test and determine the safety and suitability for their applications, and NuSil Technology LLC makes no warranty concerning fitness for any use or purpose.

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