

Advanced Technologies
Space-Grade Silicones

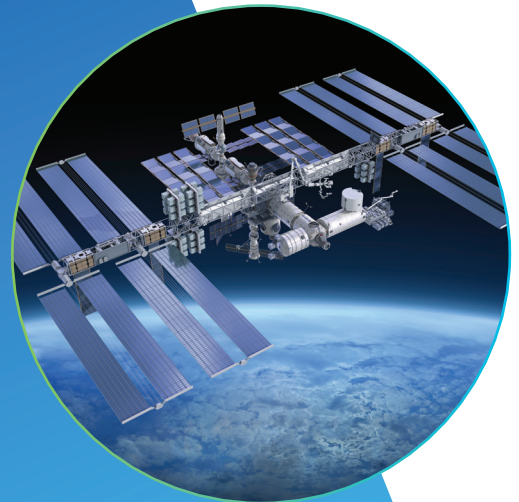
Proven silicones for space

Understanding the benefits of space-grade silicones to minimize outgassing

Low outgassing silicones are critical to the successful exploration and commercial use of space. The extreme temperatures and vacuum conditions of space present unique environmental challenges that can cause outgassing, which leads to the damage of sensitive lenses, electronics and other surfaces. NuSil® offers highly purified, low outgassing silicones used by leading technology providers and space programs to avoid contamination and material desegregation, all of which can result in catastrophic failure.

SETTING THE STANDARDS FOR PURITY AND PERFORMANCE WITH NUSIL'S CONTROLLED VOLATILITY SILICONES

- **Engineered for superior performance:**
Formulated to withstand temperatures ranging from -120°C up to 300°C, our silicones are manufactured using proprietary purification processes to mitigate condensation of volatiles and prevent contamination of nearby surfaces.
- **Broad product portfolio:**
The industry's most extensive line of low and ultra-low outgassing silicones, including adhesives, coatings, conductive and potting and encapsulating materials, combined with the ability to customize to unique requirements.
- **Strong industry support and commitment:**
We draw on decades of industry experience to provide comprehensive regulatory and documentation support for our materials, which are tested on a lot-to-lot basis that routinely meet or exceed National Aeronautics and Space Administration (NASA) and European Space Agency (ESA) standards.



CHOOSING THE RIGHT CONTROLLED VOLATILITY SILICONE

NuSil space-grade silicones are offered in two product lines:

Low Outgassing (CV) products meet or exceed ASTM E595 test requirements for total mass loss (TML) and collected volatile condensable material (CVCM):

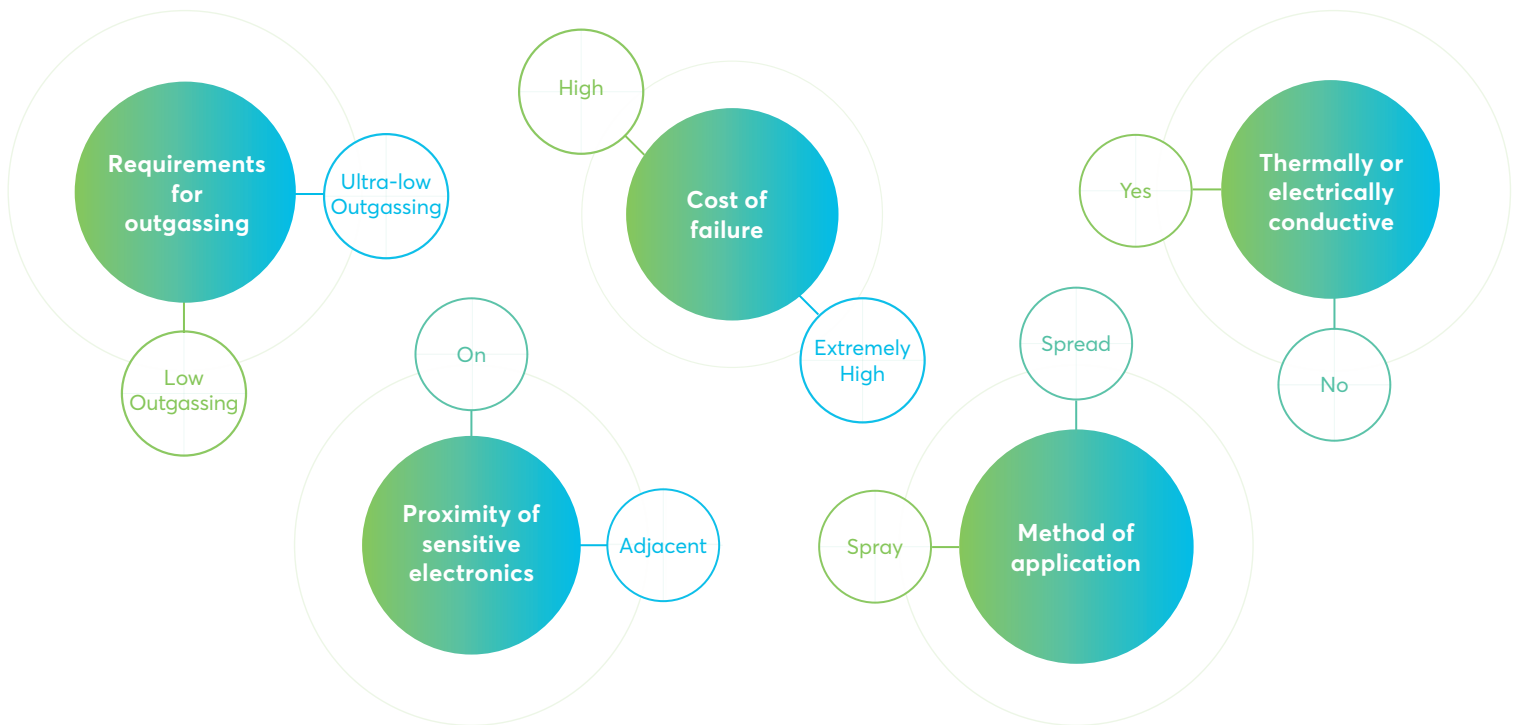
- TML ≤ 1% max
- CVCM ≤ 0.1% max

Ultra-low Outgassing (SCV) products exceed ASTM E595 by an order of magnitude:

- TML ≤ 0.1% max
- CVCM ≤ 0.01% max

Both offer exceptional performance and stability. Material selection is based on assessing key performance criteria and risk factors.

CONSIDERATIONS WHEN SELECTING A LOW OUTGASSING SILICONE



Contact NuSil® to get started

Choosing the right space-grade silicone can be challenging. The NuSil team is ready with expert insights, technical expertise and support to meet your unique needs.

www.avantorsciences.com/nusil

To learn more, visit avantorsciences.com/nusil/spacegradesilicone or contact NuSil experts today at silicone@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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