# The Freezing Temperature Capabilities of Silicone

*By Amanda Barnes, Texcel*

Silicone is renowned for its exceptional performance in freezing temperatures, making it a preferred material in various industries. Unlike many materials that become brittle and lose flexibility in cold conditions, silicone remains pliable and maintains its integrity. This is due to its low glass transition temperature (Tg), typically around -76°F, which allows it to stay flexible well below freezing. Additionally, silicone's thermal stability, withstanding temperatures from approximately -80°F to +450°F, ensures consistent performance in both extreme cold and heat.

The benefits of silicone in cold environments are numerous. Its resistance to cracking and durability makes it ideal for applications such as seals, gaskets, and components in aerospace, refrigeration, and outdoor electrical enclosures. Silicone's ability to maintain its properties in freezing temperatures reduces the risk of failure and maintenance issues, providing reliable and long-lasting performance. This versatility and reliability make silicone an invaluable material for products and components exposed to harsh, cold conditions.

In the aerospace industry, silicone's resilience in extreme temperatures is crucial for the safety and functionality of aircraft components. Similarly, in refrigeration systems, silicone seals and gaskets ensure that the equipment operates efficiently without the risk of leaks or breakdowns. Outdoor electrical enclosures also benefit from silicone's properties, as it protects sensitive electronics from the damaging effects of cold weather.

Overall, silicone's unique characteristics make it essential material for a wide range of applications. Its ability to perform reliably in freezing temperatures, combined with its durability and flexibility, ensures that it remains a top choice for industries that require materials capable of withstanding harsh environmental conditions. Whether in aerospace, refrigeration, or outdoor electrical systems, silicone continues to prove its worth as a dependable and versatile material.

# Women of the GFA: Meeting Recap

*By Celese Pauley, Gasket Resources*

"Emotional intelligence: because throwing gaskets (instead of making them) is not the solution!"

Well ladies, I personally feel that was another great meeting and I really enjoyed the focal point this year. Emotional intelligence. It can cover so many different topics. From self-awareness, empathy, all the way to strong communication. Also how it can turn workplace challenges into opportunities (and prevent unnecessary coffee-fueled meltdowns - been there, done that).

From keeping cool under pressure to handling 'interesting' emails with grace, we learned that a little emotional intelligence goes a long way. Big thanks to all the incredible women who shared their insights and experiences. Let's keep building a workplace where EI is just as essential as the products we create and sell!

As stated in the meeting, we truly welcome your feedback (constructive or positive) and honestly would love any input you have to offer. The Fall Meeting will be here before you know it, and we would love any suggestions you might have. Also, don't forget about our June "get together". Any chance to see you ladies more than a couple times a year would be great.

**Women of the GFA Summer Gathering**
Thursday, June 12, 2025 - 5:30pm - 9:00pm
Location - Pinstripes, Oak Brook, IL.