## **SILICONES**





## Electronics, Semiconductors and Advanced Information & Communications Technologies

Silicone polymers have played an integral role in advancements in computer technology, telecommunications, micro- and macro-electronics, and electrical power distribution. Silicone polymers seal, bond, and encapsulate everything from highly sensitive circuits and microprocessors to semiconductors. Silicone polymers ensure electronic components are protected from extreme heat, moisture, salt, corrosion, contamination and movement in computers, appliances, cars, and airplanes. Because of the protective properties of silicone polymers, many technological and electronic innovations in electronic devices, components, assemblies, and systems are possible.



## **Semiconductors**

Siloxanes are fundamental members of the broad family of silicone materials. While the cyclic siloxane D4 is primarily used to produce silicone polymers, D4 is also critical for the production of semiconductors. D4 is used as a precursor in an enclosed radio frequency (RF) plasma enhanced chemical vapor deposition (PECVD) process to deposit a very thin dielectric layer (measured in nm) on the wafer surface.

