


A Siotech[®] Product Line

 **Teksio**[™]

High-performance Silicone Foam

The solution for sealing and protection for automotive, aerospace, railway, and so on.

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- Flame Resistance
 - Low Smoke and Non-Toxic
 - Sealing Protection
 - Thermal Insulation and Vibration Damping

About Tek시오™ Silicone Foam

Silicone foam is a versatile material known for its exceptional properties and wide range of applications. It offers superior cushioning and shock absorption capabilities, making it ideal for protective packaging and sealing delicate items. It exhibits remarkable temperature resistance -55°C to 250°C (-67°F - 482°F), remaining structurally stable in extreme environments. With its waterproof and chemical-resistant properties, silicone foam sponge is reliable in moisture-rich or chemically challenging settings. Additionally, it provides excellent electrical insulation and durability, and so on.

What can Tek시오™ silicone foam be used for?



Thermal Insulation

The closed-cell structure of silicone foam makes it an excellent choice for heat insulation due to its superior performance.



Sound and Vibration Insulation

Silicone foam serves as an effective damper to protect applications from vibration damage and also as a sound insulator in environments where loud noise is present.



Safety Protection

Silicone foam protects against environmental stress, vibrations, and extreme temperature fluctuations.

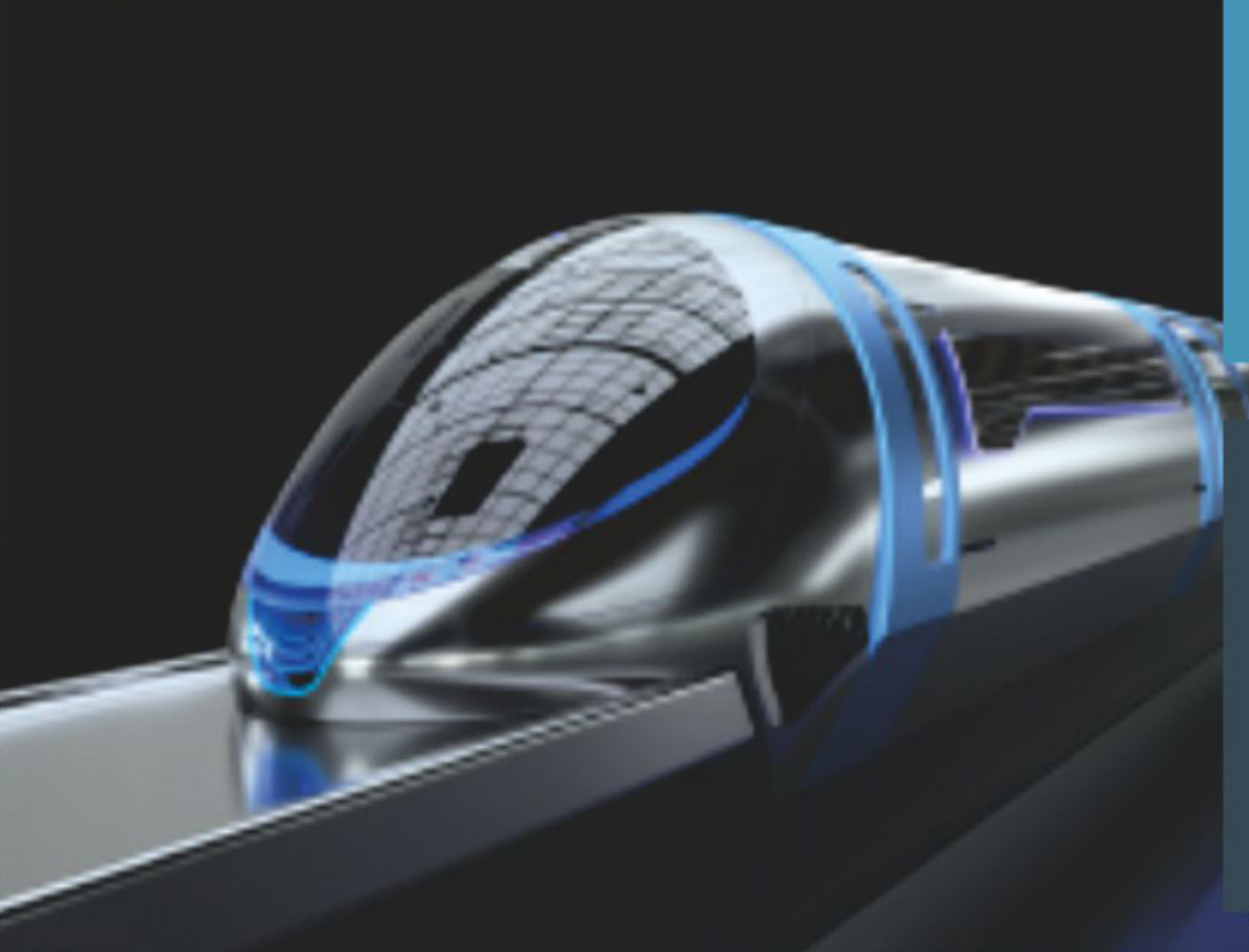


Sealing Profiles

Customized sponge profiles (including tubes, profiles, ropes, and sections) are available to meet specific sealing designs.



Applications



Automotive (Electric Vehicles)

Silicone foam provides high-performance sealing and protection for lithium-ion batteries in electric vehicles. This includes cell spacers (soft pack cell spacer, square shell cell spacer), vibration support-cooling plate support liner gas seal, and square shell cell exhaust valve seal. The latter ensures an effective seal between the exhaust valve and exhaust channel, helping to safely discharge the hot gas emitted.



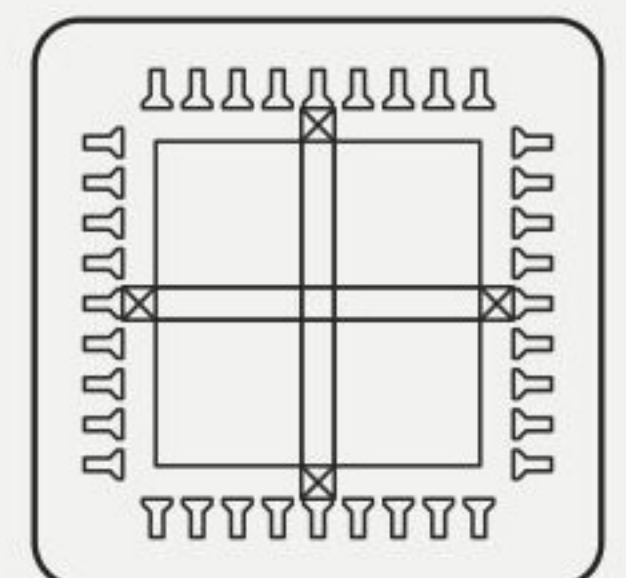
Aerospace

Silicone foam is used for internal seals, gaskets, and insulation materials that meet aerospace standards.



Electronics and LEDs

With its high temperature resistance 250°C (482°F), silicone foam offers excellent sealing performance in electrical enclosures and lighting fixtures.



Food and Beverage

Food-grade silicone is used for tubing, gaskets, and sealing profiles in food and beverage processing.



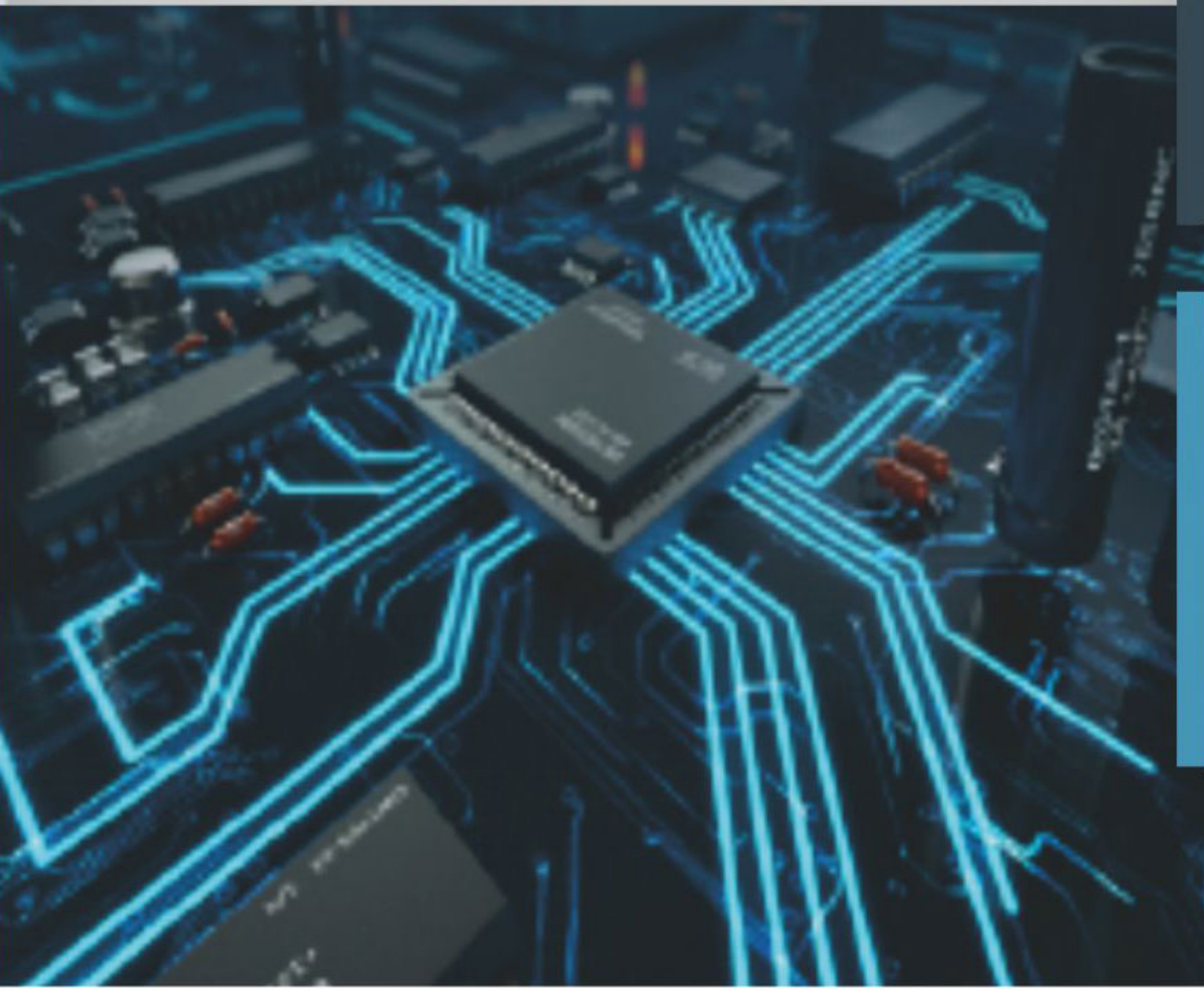
Military/Defense

Silicone foam's flame-retardant properties and low smoke emission make it ideal for military applications.



Railway and Public Transport

It provides railroad interior sealing, gasketing, and vibration isolation solutions in accordance with EN 45545-2 and NFPA 130 standards.



HVAC

Silicone foam seals are used for heating, ventilation, and air conditioning installations.



Why Tekstio™ Silicone Foam?



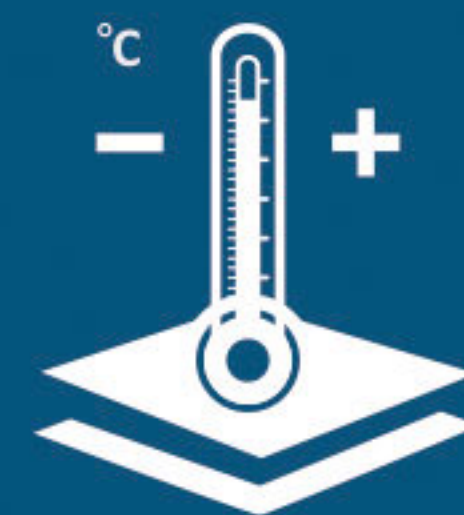
Resistant to UV and ozone



Low outgassing, ultra low VOCs



Extremely resilient to mechanical fatigue



Resistant to temperature extremes:
from -55°C to 250°C (-67°F to 482°F)



Excellent resistance to indentation and creep



Meets the most stringent UL flame ratings



Excellent sealing performance



Assured safety: suitable for contact with food



Resistant to chemicals, liquids, and solvents



Good electrical strength and nonstick
properties

■ Specifications:

<div style="text-align: center;">Box</div> <div style="text-align: center;">Thickness Standard</div>	Valid Width: 950 mm (37 inches); 100 mm (3.9 inches)		
	Paragraph (m)	Box (m)	Area (m ²)
$1 \leq T \leq 2$	15	30	30
$3 \leq T \leq 5$	10	20	20
$6 \leq T \leq 9$	4	6	6
$10 \leq T \leq 15$	2	4	4
$10 \leq T \leq 25$			

Teksio™ Silicone Materials provide the following value-added services:

Provide double-sided or single-sided backing service: pressure-sensitive adhesive options include acrylic adhesive (single-sided or double-sided), and silicone (single-sided); Material slitting service is available.



Customized solutions are available according to your needs.

■ Performance Technical Standards:

Performance	Technical Parameters	Standard
Density (g/cm ³)	0.18-0.50	GBT6343-1995
225% Compression Permanent Stress (KPa)	2.0-100	ASTM D1056
Compression Set (100 °C)	≤5	ASTM D1056
Tensile Strength (MPa)	> 0.2	ASTM D412
Elongation (%)	> 100	ASTM D412
Water Absorbency	≤5	Internal
Environmental Testing	Pass	RoHS & REACH
Heat Conductivity (W/m.K)	0.05-0.100	GBT17794-2008
Working Temperature	-55°C to 250°C (-67°F-482°F)	Internal
Flame Retardancy	V-0	UL-94
Flame Retardancy		AMS 3195
Acoustic Insulation	-35	ISO 354:2003
Toxic Gases from Combustion (SMP 800-C)	Pass	ASTM E662
Max. Smoke Density	≤150	ASTM E662
Dielectric Strength KV/mm		ASTM D149
Volumetric resistivity	1.0×10 ¹⁴	ASTM D257

About Siotech®

Since 2004, the Siotech® Group has been a trusted provider of high-quality silicone products. With a 40,000-square-meter production facility and a robust raw material supply chain, we prioritize fast deliveries and short lead times, giving us flexibility and a competitive edge in the marketplace. With offices and distribution centers in Asia, North America and Europe, the Siotech® Group ensures stable, reliable service and support on both a global and local scale.

■ State-of-the-art Laboratories

At Siotech®, our laboratories are where concepts and ideas are born—this is where the next generation of silicone products becomes a reality. Our team of experts are able to develop, test, and certify material development according to relevant international standards.

■ Quality Control

To ensure that we are at the forefront of innovation and that we maintain quality standards, our rigorous laboratory testing allows us to assess:

- Tensile behavior
- Water absorption
- Oil swelling
- Tear strength
- Elongation
- Compression deformation
- Shore hardness
- Flame test



Safety Compliance

Siotech® has the following compliance certifications:



An internationally recognized quality management system based on a number of quality management principles, including customer focus, top management motivation, process approach, and continuous improvement.



An internationally recognized technical standard for the automotive industry, focusing on defect prevention, reducing quality fluctuations, and waste in the supply of automotive parts.



Restriction of Hazardous Substances Standard, also known as Directive 2002/95/EC. Originating in the European Union, it restricts the use of specific hazardous substances in electrical and electronic products. After July 1, 2006, all applicable products on the EU market must pass the RoHS standard.



An international standard system for environmental management, aiming to achieve pollution prevention, energy saving, resource efficiency, and continuous improvement of environmental performance.



The EU regulation on the registration, evaluation, authorization, and restriction of chemicals. REACH aims to provide a high level of protection for human health and the environment by avoiding the use of harmful chemicals.



Formally known as the Safe Drinking Water and Toxic Enforcement Act of 1986, Proposition 65 is a law passed by the State of California in 1985. Its goal is to protect drinking water sources from toxic substances that cause cancer and birth defects, and to reduce or eliminate exposure to these chemicals.



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