

Compo-SiL®

Part of your life



Contents

- 01 About General Silicones
- O2 Sustainability of Silicone
- O3 About *Compo-SiL*®

About General Silicones





General Silicones Group

Professional Silicone Rubber Solution Provider

General Silicones (GS) was founded in 1970 in Taipei, Taiwan, and is now represented worldwide — including Europe, China, Japan, and South East Asia countries. GS is not only a major distributor of silicone materials, but also an active silicone products manufacturer with ISO 9001, IATF 16949, and ISO 14001 certifications. The company has manufacturing plants in Hsinchu, Taiwan; Wujiang, China; and Bac Giang, Vietnam. With decades of experience in this field, GS has the ability and capacity to provide a wide range of silicone products for many industries including medical, automobile, consumer products, electronics and IT.

Sustainability of Silicone



What is **Silicone**?

Silicone is an eco-friendly biocompatible non-plastic versatile synthetic polymeric material. It offers a wide range of beneficial features like high temperature resistance, low temperature flexibility, water repellence, anti-fouling, chemical resistance, UV/Ozone & weathering resistance etc. Specially, the incredible durability of silicone products distinguishes itself from other petroleum-based single-use products in respect of lifelong of reusability, hence decreasing the reliance on fossil fuels.



Sustainability of Silicone





Sustainability of Silicones

Silicones are one of the biocompatible man made polymer material derived from silica which is the major constituent of sand. It is a sustainable material being less intruding on environment with reduced CO₂ emission, nominal use of electricity, raw material and water for production in comparison to other plastics.



Life Cycle of Silicone Products

Raw Material Material Processing

Manufacturing

Product

Disposal

Silica (SiO₂)

-Compound of the two most abundant elements in Earth's crust

Silicon (Si)

-Bring revolution in semiconductor industry

Silicone

- Free of BPA, PVC, lead, latex, halogen etc.
- Certified by RoHS, REACH, FDA.

Production of silicone product

- -Low VOC
- Reduce CO₂ emission
- Save energy (water/electricity)

Property

- -Non-toxic
- -Durable
- -Reusable
- -Resistant to high temperature
- -Resistant to hydrolysis
- -Resistant to oxidative degradation

Harmless ingredients

-In landfill, it can be decomposed into harmless ingredients, such as amorphous silica, carbon dioxide, and water vapor.



With an experience of over 50 years in silicone materials development and standing by the company's mission of "Help improve our life quality, and leave the next generation a pollution-free environment.", GS has developed a silicone based composite : $Compo-SiL^{\circ}$.

About Compo-SiL[®]



Compo-SiL®

Part of your life

General Silicones has developed a better solution for eco-friendly, sustainable, highly durable, printable, laminable and flexible $Compo\text{-}SiL^{\circ}$ polymer composite substrate that comes with unlimited possibilities as an emerging material.



Why $Compo-SiL^{\mathbb{R}}$?

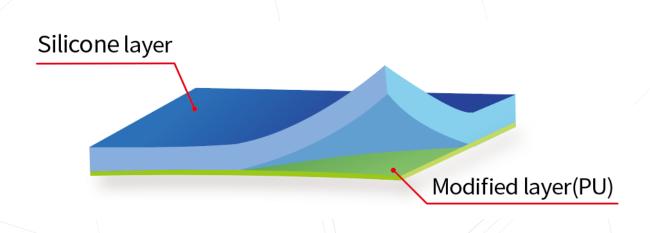
Silicone material gives the advantage of durability, but at the same time makes its applications relatively limited due to its inertness. The composite technology of *Compo-SiL®* overcomes this problem, so that the silicone material can be easily displayed on the surface of various materials using various existing adhesives.





Core Value of Compo-SiL®

Compo-SiL is a breakthrough for silicone, which solves the surface inertia of silicone through chemically composite it with the polyurethane-based modified layer.







Motivation for Compo-SiL®

Property of Silicone Layer



Highly Elastic



Waterproof



Glossy Surface



Highly Transparent



Thermally Conductive



Highly Biocompatible



Weather Resistant



Hydrolysis Resistant



Electrically Insulating / Conductive



UV Resistant



Motivation for Compo-SiL®

Property of Modified Layer



Printable



Laminable



PU foam



High temperature resistant



Adherable



Product series

Vegan Silicone Leather



Vegan Silicone Leather can deliver exquisite sensation, while offering high-level customized specifications with a diversity of color choices, surface patterns, textures, and additional valuable functionalities.

Silicone Composite Film



Silicone Composite Film has a modified layer above silicone which provides a solution of textile binding ability, printability, and laminability at once. Some of its kinds include transparent & translucent films, conductive & flame retardant films, printable and skin films.

Flame Retardant



Flame retardant silicone sheet can be bonded with different flame resistant fabric. It not only fulfills the requirement of UL 94-V0 standard, but also shows excellent properties of flame retardant, chemical resistant, high temperature resistant, electrical insulation, etc.



Applications

Textile Industry



Flexible Hybrid Electronics(FHE)



Transportation



Consumer Products



Medical & Healthcare



Fire Safety





Production Line









Certifications







RoHS 2011/65/EU



HALOGEN

Patent TW107118941

Taiwan Patent



Material ConneXion
Seal of Excellent Material



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