SILICONE GEL SERIES

SOFT, Pliable, AND INSULATIVE
SILICONE TECHNOLOGY
Benefits of CHT’s Silicone Technology

- **Adhesion**: Excellent adhesion to a wide variety of substrates due to primerless adhesion and self-bonding grades available.
- **Cure Speed**: Room temperature and heat-curing options available.
- **Color / Tint**: Variety of colors and tints available, including UV resistant and high refractive index grades.
- **Environmental Protection**: Non-yellowing catalyst systems are available.
- **Flame Retardancy**: UL listed grades are available.
- **Optically Clear Technology**: Available for LED lighting and displays.
- **Primers and Adhesives**: Primerless adhesion and self-bonding grades available.
- **Removable and Repairable**: Adhesive packages are available to transition between removable/repairable to permanent applications.
- **Versatility**: Silicone gels can function as an adhesive for temporary and permanent applications.
- **Thermal Cycling**: silicone gels perform well in thermal cycling, vibration, and mechanical stress conditions.
- **Thixotropic Grades**: Available for variety of applications.

Silicone Gel Applications

- **AVIATION**: Silicone gels can be used to protect components from vibration, thermal and mechanical shock, and guard against moisture contamination. Additionally, silicone gels are used to protect electronic components and assemblies from cleaning chemicals, such as PAO and polyester-based solvents.
- **AEROSPACE**: Silicone gels can be used to protect components and assemblies from vibration, thermal and mechanical shock, and guard against moisture contamination. They also protect components and assemblies from cleaning chemicals, such as PAO and polyester-based solvents.
- **LED LIGHTING**: Silicone gels can be used to protect components and assemblies from vibration, thermal and mechanical shock, and guard against moisture contamination. They also protect components and assemblies from cleaning chemicals, such as PAO and polyester-based solvents.
- **FILTERS**: Silicone gels can be used to protect components and assemblies from vibration, thermal and mechanical shock, and guard against moisture contamination. They also protect components and assemblies from cleaning chemicals, such as PAO and polyester-based solvents.
- **FLAT PANEL DISPLAY**: Silicone gels can be used to protect components and assemblies from vibration, thermal and mechanical shock, and guard against moisture contamination. They also protect components and assemblies from cleaning chemicals, such as PAO and polyester-based solvents.
- **CONNECTORS**: Silicone gels can be used to protect components and assemblies from vibration, thermal and mechanical shock, and guard against moisture contamination. They also protect components and assemblies from cleaning chemicals, such as PAO and polyester-based solvents.

Silicone Gel Specifications

- **Color / Tint**: Tinted and non-tinted grades available.
- **Viscosity**: Various viscosities for easy dispensing.
- **Modulus Control**: Advanced modulus and viscosity control technologies available.
- **Curing**: Platinum curing systems available.
- **Vulcanization**: Most vulcanize at either room temperature or can be heat-cured.
- **Extraction Resistance**: Low volatile materials are available.
- **Flammability**: Flame retardant UL listed grades available.
- **Electrical Properties**: Thermally conductive grades for heat sinks.
- **Lighting**: Excellent light transmission for LED lighting applications.
- **Chemical Resistance**: Excellent resistance to certain chemicals and solvents.
- **Thermal Protection**: Excellent thermal protection and electrical insulating properties.
- **Adhesion**: Excellent adhesion to a wide variety of substrates.
- ** Primerless Adhesion**: Primerless adhesion and self-bonding grades available.

Silicone Gel Products

- **QGel 300Y**: High strength gel, 10:1, Transparent, 2,050 cps, 2 hours, 70 Shore 00, 1.40
- **QGel 310**: General purpose gel, 1:1, Transparent, 1,000 cps, >24 hours, 7 mm, 1.40
- **QGel 312**: Designed to accommodate high loadings of solids, 1:1, Transparent, 300 cps, >7 days, 50 Shore 00 / 5 mm, 1.40
- **QGel 313**: Two mix ratios available, 1:1, Transparent, 950 cps, 120 min, 7 mm, 1.40
- **QGel 315**: Extremely long work life, 1:1, Transparent, 1,500 cps, 135 min, 7 mm, 1.40
- **QGel 319**: High strength gel, 1:1, Transparent, 1,000 cps, 6 min, 12 mm, 1.40
- **QGel 322**: Low viscosity gel, 1:1, Transparent, 755 cps, 30 min, 6 mm, 1.40
- **QGel 324**: Excellent self-healing properties, 1:1, Transparent, 1,500 cps, 135 min, 7 mm, 1.40
- **QGel 329**: General purpose gel, 1:1, Transparent, 950 cps, 120 min, 7 mm, 1.40
- **QGel 330**: Firm gel, 1:1, Transparent, 650 cps, 5 hours, 45 Shore 00, 1.41
- **QGel 333**: UL 94 HB @ 1.7 and 3.0 (mm), 1:1, Transparent, Blue, 825 cps, 30 min, 45 Shore 00, 1.41
- **QGel 336**: Fast cure, room temperature, 1:1, Transparent, 2,050 cps, 1h, 45 Shore 00, 1.41
- **QGel 340**: High strength gel, 1:1, Transparent, 1,500 cps, 135 min, 7 mm, 1.40
- **QGel 341**: UV resistant gel, 1:1, Transparent, 1,500 cps, 3 min, 7 mm, 1.40
- **QGel 342**: Gel with UV tracer, 1:1, Transparent / UV Blue, 1,000 cps, 2 min, 7 mm, 1.40
- **QGel 343**: Gel with UV tracer, 1:1, Light Blue, 425 cps, 7 min, 65 Shore 00, n/a
- **QGel 344**: Self-bonding, 1:1, Transparent Yellow, 440 cps, 7 min, 60 Shore 00, n/a
- **QGel 345**: General use gel, 1:1, Transparent Yellow, 1,500 cps, 135 min, 7 mm, 1.40
- **QGel 346**: General use gel, 1:1, Transparent Yellow, 1,500 cps, 135 min, 7 mm, 1.40
- **TufGel 330**: Firm gel, 1:1, Transparent, 785 cps, 5 hours, 45 Shore 00, 1.41
- **TufGel 331**: High Refractive Index, 1:1, Transparent, 1,550 cps, 45 min, 7 mm, 1.43
- **TufGel 332**: Tinted for contrast, 1:1, Transparent Yellow, 900 cps, 7 min, 12 mm, 1.40
- **TufGel 333**: UL 94 HB @ 1.7 and 3.0 (mm), 1:1, Transparent Blue, 825 cps, 30 min, 45 Shore 00, 1.41
- **TufGel 334**: Gel with UV tracer, 1:1, Transparent / UV Blue, 1,000 cps, 2 min, 7 mm, 1.40
- **TufGel 335**: Gel with UV tracer, 1:1, Light Blue, 425 cps, 7 min, 65 Shore 00, n/a
- **TufGel 336**: Excellent self-healing properties, 1:1, Transparent, 1,500 cps, 135 min, 7 mm, 1.40
- **TufGel 337**: General purpose gel, 1:1, Transparent, 950 cps, 120 min, 7 mm, 1.40
- **TufGel 338**: General purpose gel, 1:1, Transparent, 950 cps, 120 min, 7 mm, 1.40
- **TufGel 339**: General purpose gel, 1:1, Transparent, 950 cps, 120 min, 7 mm, 1.40
- **TufGel 340**: High strength gel, 1:1, Transparent, 1,500 cps, 135 min, 7 mm, 1.40
- **TufGel 341**: UV resistant gel, 1:1, Transparent, 1,500 cps, 3 min, 7 mm, 1.40
- **TufGel 342**: Gel with UV tracer, 1:1, Light Blue, 425 cps, 7 min, 65 Shore 00, n/a
- **TufGel 343**: Self-bonding, 1:1, Transparent Yellow, 440 cps, 7 min, 60 Shore 00, n/a
- **TufGel 344**: General use gel, 1:1, Transparent Yellow, 1,500 cps, 135 min, 7 mm, 1.40
- **TufGel 346**: General use gel, 1:1, Transparent Yellow, 1,500 cps, 135 min, 7 mm, 1.40
Silicone is a versatile material used for a wide range of applications due to its unique properties. CHT's silicone gels are used to protect delicate components and assemblies, offering benefits such as moisture protection, self-bonding capabilities, and low viscosity for fast dispensing. These properties make them ideal for use in electronics, aerospace, and special effects industries.

### BENEFITS OF CHT'S SILICONE TECHNOLOGY
- **Moisture protection**
  - Enables the protection of electronic controls and wires, providing insulation for transformers and other high voltage functions. These flexible materials maintain their original properties in thermal cycling, vibration, and mechanical stress.
  - CHT's silicone gels are used as durable and robust adhesives for connectors and components.
- **Self-bonding capabilities**
  - CHT's silicone gels are designed to bond to various substrates without the need for primers, which is particularly useful in aerospace and automotive applications.
- **Low viscosity for fast dispensing**
  - This feature allows for easy application and is particularly advantageous in industries where installation speed and efficiency are crucial.

### SILICON GELS SERIES
- **SILICONE GELS SERIES**
  - CHT offers a variety of silicone gels suitable for different applications. These include:
    - **TufGel** series, ideal for aerospace and automotive industries due to their high strength and adhesion properties.
    - **QGel** series, designed for high-strength applications in electronics and medical devices.
    - **Gel** series, suited for general-purpose applications in industries such as electronics, aerospace, and automotive.

### SILICONE GELS APPLICATIONS
- **ELECTRONICS**
  - Silicone gels are used to protect delicate electronic components from moisture and contamination, ensuring reliable performance in harsh environments.
- **AEROSPACE**
  - CHT's silicone gels are specifically designed for aerospace applications, offering superior performance in极端 temperatures and stress conditions.
- **SPECIAL EFFECTS**
  - Silicone gels are used to create prosthetics and props, providing a durable and realistic adhesive solution for the film industry.

### TYPICAL USES
- **PROTECTIVE COATING**
  - Silicone gels are used to create protective coatings for electronic components, ensuring they are safeguarded against environmental stresses.
- **BONDING APPLICATIONS**
  - These gels are ideal for bonding substrates and components, offering strong adhesion and durability.
- **GASKETING APPLICATIONS**
  - Silicone gels can be used as gaskets, providing a sealant function to prevent moisture and contamination.

### Advantages
- **Low modulus materials minimize CTE**
  - This property ensures compatibility with substrates and allows for easy dispensing.
- **Room temperature and heat curing**
  - These gels can be cured at room temperature or with heat, offering flexibility in application methods.

### Disadvantages
- **Limited availability**
  - Some product variations may not be available upon request, depending on specific requirements.

### Notes
- Effective packaging and shipping strategies are employed to ensure that silicone gels are delivered in optimal condition.

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**CHT’s Silicone Gels Overview**

- **Unlimited choices of durometers and penetrations**
  - Silicones are available in a wide range of hardnesses, providing flexibility in application.
- **Non-slumping thixo gels**
  - These gels maintain their form during application, ensuring consistent results.
- **Self-bonding capabilities**
  - Products are designed for primerless adhesion, simplifying installation processes.

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**CHT’s Silicone Gels Series**

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**CHT’s Silicone Gels Benefits**

- **Excellent resistance to certain chemicals**
  - Silicone gels are resistant to various chemicals, ensuring durability and longevity in applications.
- **Excellent thermal stability**
  - These gels maintain their properties over a wide range of temperatures, making them ideal for high-temperature environments.

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**CHT’s Silicone Gels Specifications**

- **Soft, resilient gels**
  - Silicone gels are designed for easy installation and are ideal for creative applications.
- **Adhesive technology**
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CHT is committed to providing you with superior service and the highest quality silicone products available. Our certification to the ISO 9001 standard ensures that we are always working towards continual improvement in every way.

We also have a stringent product testing protocol that uses ASTM standard test methods. Based on your specifications, products must meet certain criteria throughout production and prior to its release. A Certificate of Analysis will accompany every shipment you receive.

To view CHT’s complete product portfolio or to request product samples, please visit www.cht.com/us02.en

CALL US TOLL-FREE TODAY
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