Silicone Gels

These silicones are generally used to protect delicate components from impact, vibration and shock, and also protect components from moisture, airborne contaminants.

Silicone Gels are either one or two component, platinum cure system, which form a soft gel-like elastomer when cured.

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US-HC-456

Heat Cure 1 Part Silicone Gel – 10 Shore A Hardness

1-part, heat cure silicone developed for conformal coating applications. It offers unprimed adhesion to metals and many plastics. Heated cures result in a tough and durable silicone conformal coating.

Product Features

- Neutral Addition Cure
- Fast heat cure
- Self-leveling liquid
- Fluoresces under UV light to enable coating inspection
- Adhesion to metals and many plastics
- Convenient 1 part system

Product Applications

- Coating electronic assemblies
- Industrial coating and sealing
- Thin section potting & encapsulation

Chemical cure system: Platinum catalyzed, addition cure system.

Typical Properties

Uncured

Specific Gravity: 0.98	Color: Clear	Solids: 100 %
Shelf Life: 12 MONTHS	Viscosity: 600 cps.	Tack Free Time at 110°C: 15 minutes

Cured 20 minutes at 110°C

Durometer, Shore A: 10	Dielectric Strength, kv/mm: 13
Dielectric Constant: 2.4	Dissipation Factor at 1kHz: 0.01
Thermal conductivity: 0.0005	

Application Methods: Apply by: pouring, dipping, brushing, flow-coat, spin-on or spraying.

Curing: Can be accomplished with heat to very rapid cures. Typical utilization involves dispensing in open air and oven, IR, or hot air curing.

Handling precautions: Avoid contact with tin cured RTV's, sulphur compounds, azides, imides, latex rubber gloves, and amines as cure system can be deactivated

Solids: 100% solids, contains no solvents

Adhesion: This product offers primerless adhesion to plastics, metals and typical substrates.

Service temperature: -65°C to +250°C continuous

Limitations: Do not use product in solvent or fuel immersion applications. Allow to fully cure before putting assembly into service.

Packaging: Available in 8 pound gallon cans, 40 lb. pails and 400 lb. drums. This product is also available in customer defined packaging upon request.

Handling and safety: For maximum shelf life, keep containers sealed when not in use. Keep out of the reach of children. Uncured sealant irritates eyes and skin. Refer to MSDS.

Shelf-life: Sealed containers guaranteed for 6 months from the ship date when stored in a cool dry area below 70°F.

Applicable standards: Conforms to GM low volatility requirements.

US-HC-12183
Heat Cure 1 Part Silicone Gel Conformal Coating

heat curing silicone RTV developed for encapsulation and conformal coating applications. This is a 1-Part silicone that when heated to 150°C, cures in less than 30 minutes forming a tough silicone rubber.

Product Features

- Transparent encapsulant
- Addition cure liquid
- Excellent moldability and conformation to plastic, metal and glass parts
- Convenient 1-Part system
- Fluoresces under UV light for inspection

Typical Applications

- Electronic component vibration
- Shock and thermal insulation
- Dust and moisture protection
- Dielectric and insulation

Chemical cure system: Platinum catalyzed, addition cure system.

Typical Properties

Uncured:

Color: Water white, clear	Viscosity, cps: 900	Specific Gravity: 0.90
Consistency: Self-leveling, light liquid	Pot-life at Room Temperature: 12 months	
Cure time at 150°C: < 30 minutes	Odor: none	

Cured:

Shore 00: 60	Tensile: 100 PSI	Elongation: 200%
By-products: none	Shrinkage: none	Corrosivity: none
Temperature range: -65°C to 250°C		

Application Methods: Apply by: pouring, dipping, brushing, flow-coat, spin-on or spraying.

Handling precautions: Avoid contact with tin cured RTV's, sulphur compounds, azides, imides, latex rubber gloves, and amines as cure system can be deactivated

Solids: 100% solids, contains no solvents

Adhesion: This product offers primerless adhesion to plastics, metals and typical substrates.

Service temperature: -65°C to +250°C continuous

Limitations: Do not use product in solvent or fuel immersion applications. Allow to fully cure before putting assembly into service.

Packaging: Available in 2.8 & 5.5oz squeeze tubes, 6.25oz sem kit cartridges, a 25 ml syringe, one pound cans, 8 lb. gallon containers and 40 lb. 5 gallon pails. This product is also available in customer defined packaging sizes, upon request.

Handling and safety: For maximum shelf life, keep containers sealed when not in use. Keep out of the reach of children. Uncured sealant irritates eyes and skin. Refer to MSDS.

Shelf-life: Sealed containers guaranteed for 1 year from the ship date when stored in a cool dry area below 70°F.

Applicable standards: Conforms to GM low volatility requirements.

US-VSD-3000

2 Part Vibration and Shock Dampening Silicone Gel

This is a fast curing rubber coating developed for shock dampening and vibration isolation applications. This is a 2-Part silicone that when cured, allows handling of the parts within minutes. Works well in automatic and manual dispensing equipment.

Product Features

- Room temperature cure or fast heat cure silicone rubber
- 2-part 1:1 mix
- Pourable and self-leveling
- Temperature range –40°C to +260°C

Color: Translucent (custom colors available upon request)

Typical Applications

- Vibration isolation
- Severe impact cushioning
- Shock dampening

Chemical cure system: Platinum catalyzed, addition cure system.

Typical Properties

Uncured:

Viscosity, cps: 100,000
Specific Gravity: 1.05
Consistency mixed: thick liquid
Working time at Room Temperature: 15mins.
Cure time at 150°C: 5 minutes
Cure time at Room Temperature: 60-120mins.

Cured:

Tensile Strength, PSI: >300
Elongation, %: >300
Tear Strength, PPI: 25
Coefficient of Thermal Expansion: 20×10^{-5}

Mixing Instructions: The preferred method of mixing and application is through a static mixer at a 1:1 mix ratio by volume.

Handling precautions: This is a Platinum Cure system product. The catalyst can be deactivated by exposure to sulfur containing compounds like thiols, sulfides, sulfates, organic rubber containing sulfur, nitrogen containing compounds like amines, amides, imides, azides, tin metals or compounds, or tin cured RTV's.

Service temperature: -40°C to +260°C

Limitations: Do not use product on head gaskets or in solvent or fuel immersion applications. Allow to fully cure before putting assembly into service.

Packaging: Available in 2.8 & 5.5oz squeeze tubes, 6.25oz sem kit cartridges, 400 ml. cartridges, 40 lb. pail kits and 400 lb. drum kits. This product is also available in customer defined packaging sizes, upon request.

Handling and safety
For maximum shelf life, keep containers sealed when not in use. Keep out of the reach of children. Uncured sealant irritates eyes and skin. Refer to MSDS.

Shelf-life
Sealed containers guaranteed for 1 year from the ship date when stored in a cool dry area below 70°F.

US-VSD-12180

Low Dampening 2 Part Silicone Gel RTV 30 ShoreA

US-VSD-12180 is a room temperature curing silicone RTV gel. Developed for applications requiring a fast cure silicone gel product. This is a two part, 1:1 mix ratio silicone that when mixed at room temperature, cure in 180 minutes, or when exposed to heat results in a cured gel in 15 minutes. When cured, the elastomer resists weathering, ozone, moisture, UV and high temperatures.

Product Features

Addition cure liquid
Excellent moldability and conformation to plastic, metal and glass parts
Convenient 1:1 mix ratio
Clear silicone rubber

Color: Clear (custom colors available upon request)

Typical Applications

Clear potting or encapsulation of parts
Electronic component vibration,
shock and thermal insulation
Dust and moisture protection
Dielectric insulation

Chemical cure system: Platinum catalyzed, addition cure system.

Typical Properties

Uncured

Viscosity, cps: 1,000 Specific Gravity: 0.98 Consistency mixed: light liquid
Pot-life at Room Temperature:120 minutes Cure time at Room Temperature: 180 minutes
Cure time at 150°C: 15 minutes

Cured

Cured	US-VSD-12180	US-VSD-15180	US-VSD-18180	US-VSD-18240
Shore A	30	10	<0	<0
Shore 00	80	60	1 to 2	<0
Dampening	low	medium	high	very high
Penetration	low	low	60	80

Mixing Instructions: The preferred method of mixing and application of gels is by using a 1:1 mix ratio by volume or weight and then degassing. These can also be mixed and dispensed through automatic equipment.

Depth of cure vs time: Within 30 to 60 minutes, any depth of application filled with this product will be cured and fully encapsulated.

Handling precautions: Avoid contact with tin cured RTV's, sulphur compounds, azides, imides, latex rubber gloves, and amines as cure system can be deactivated

Solids: 98% solids, contains no solvents

Adhesion: Peelable & Adhesive versions available. Please specify when ordering.

Service temperature: -65°C to 250°C continuous

Limitations: Do not use product on head gaskets, or in solvent or fuel immersion applications. Allow to fully cure before putting assembly into service.

Packaging: These gels are available in 50 ml. dual syringes, one pound kits, 16 lb. kits and 80 lb. kits. These product are also available in customer defined packaging sizes, upon request.

Handling and safety: For maximum shelf life, keep containers sealed when not in use. Keep out of the reach of children. Uncured sealant irritates eyes and skin. Refer to MSDS.

Shelf-life: Sealed containers guaranteed for 1 year from the ship date when stored in a cool dry area below 70°F.

Applicable standards: Conforms to GM low volatility requirements.

US-VSD-15180

Medium Dampening 2 Part 10 ShoreA Low Durometer Silicone Rubber Gel

This is a room temperature curing silicone RTV gel. These were developed for applications requiring a fast cure silicone gel product. All are two part, 1:1 mix ratio silicone that when mixed at room temperature, cure in 180 minutes, or when exposed to heat results in a cured gel in 15 minutes. When cured, the elastomer resists weathering, ozone, moisture, UV and high temperatures.

Product Features
Addition cure liquid
Excellent moldability and conformation to plastic, metal and glass parts
Convenient 1:1 mix ratio
Clear silicone rubber

Color: Clear (custom colors available upon request)

Typical Applications
Clear potting or encapsulation of parts
Electronic component vibration,
shock and thermal insulation
Dust and moisture protection
Dielectric insulation

Chemical cure system
Platinum catalyzed, addition cure system.

Typical Properties

Uncured

Viscosity, cps: 1,000 Specific Gravity: 0.98 Consistency mixed: light liquid
Pot-life at Room Temperature:120 minutes
Cure time at Room Temperature: 180 minutes Cure time at 150 C 15 minutes

Cured

Cured	US-VSD-12180	US-VSD-15180	US-VSD-18180	US-VSD-18240
Shore A	30	10	<0	<0
Shore 00	80	60	1 to 2	<0
Dampening	low	medium	high	very high
Penetration	low	low	60	80

Mixing Instructions: The preferred method of mixing and application of gels is by using a 1:1 mix ratio by volume or weight and then degassing. These can also be mixed and dispensed through automatic equipment.

Depth of cure vs time : Within 30 to 60 minutes, any depth of application filled with this product will be cured and fully encapsulated.

Handling precautions: Avoid contact with tin cured RTV's, sulphur compounds, azides, imides, latex rubber gloves, and amines as cure system can be deactivated

Solids: 98% solids, contains no solvents

Adhesion: Peelable & Adhesive versions available. Please specify when ordering.

Service temperature: -65 to 250C continuous

Limitations: Do not use product on head gaskets, or in solvent or fuel immersion applications. Allow to fully cure before putting assembly into service.

Packaging: These gels are available in 50 ml. dual syringes, one pound kits, 16 lb. kits and 80 lb. kits. These product are also available in customer defined packaging sizes, upon request.

Handling and safety: For maximum shelf life, keep containers sealed when not in use. Keep out of the reach of children. Uncured sealant irritates eyes and skin. Refer to MSDS.

Shelf-life: Sealed containers guaranteed for 1 year from the ship date when stored in a cool dry area below 70°F.

Applicable standards: Conforms to GM low volatility requirements.

US-VSD-18180

High Dampening 2 Part 0 ShoreA Low Durometer Silicone Rubber Gel

This is a room temperature curing silicone RTV gel. These were developed for applications requiring a fast cure silicone gel product. All are two part, 1:1 mix ratio silicone that when mixed at room temperature, cure in 180 minutes, or when exposed to heat results in a cured gel in 15 minutes. When cured, the elastomer resists weathering, ozone, moisture, UV and high temperatures.

Product Features

- Addition cure liquid
- Excellent moldability and conformation to plastic, metal and glass parts
- Convenient 1:1 mix ratio
- Clear silicone rubber

Color: Clear (custom colors available upon request)

Typical Applications

- Clear potting or encapsulation of parts
- Electronic component vibration,
- shock and thermal insulation
- Dust and moisture protection
- Dielectric insulation

Chemical cure system: Platinum catalyzed, addition cure system.

Typical Properties

Uncured:

Viscosity, cps: 1,000 Specific Gravity: 0.98 Consistency mixed: light liquid
Pot-life at Room Temperature:120 minutes Cure time at Room Temperature: 180 minutes
Cure time at 150°C: 15 minutes

Cured:

Cured	US-VSD-12180	US-VSD-15180	US-VSD-18180	US-VSD-18240
Shore A	30	10	<0	<0
Shore 00	80	60	1 to 2	<0
Dampening	low	medium	high	very high
Penetration	low	low	60	80

Mixing Instructions: The preferred method of mixing and application of gels is by using a 1:1 mix ratio by volume or weight and then degassing. These can also be mixed and dispensed through automatic equipment.

Depth of cure vs time : Within 30 to 60 minutes, any depth of application filled with this product will be cured and fully encapsulated.

Handling precautions: Avoid contact with tin cured RTV's, sulphur compounds, azides, imides, latex rubber gloves, and amines as cure system can be deactivated

Solids: 98% solids, contains no solvents

Adhesion: Peelable & Adhesive versions available. Please specify when ordering.

Service temperature: -65°C to +250°C continuous

Limitations: Do not use product on head gaskets, or in solvent or fuel immersion applications. Allow to fully cure before putting assembly into service.

Packaging: These gels are available in 50 ml. dual syringes, one pound kits, 16 lb. kits and 80 lb. kits. These product are also available in customer defined packaging sizes, upon request.

Handling and safety: For maximum shelf life, keep containers sealed when not in use. Keep out of the reach of children. Uncured sealant irritates eyes and skin. Refer to MSDS.

Shelf-life: Sealed containers guaranteed for 1 year from the ship date when stored in a cool dry area below 70°F.

Applicable standards: Conforms to GM low volatility requirements.

US-VSD-18240

Very High Dampening 2 Part <1 Shore00 Low Durometer Silicone Rubber Gel

Room temperature curing silicone RTV gel. These were developed for applications requiring a fast cure silicone gel product. All are two part, 1:1 mix ratio silicone that when mixed at room temperature, cure in 180 minutes, or when exposed to heat results in a cured gel in 15 minutes. When cured, the elastomer resists weathering, ozone, moisture, UV and high temperatures.

Product Features
Addition cure liquid
Excellent moldability and conformation to plastic, metal and glass parts
Convenient 1:1 mix ratio
Clear silicone rubber

Color: Clear (custom colors available upon request)

Typical Applications
Clear potting or encapsulation of parts
Electronic component vibration,
shock and thermal insulation
Dust and moisture protection
Dielectric insulation

Chemical cure system: Platinum catalyzed, addition cure system.

Typical Properties

Uncured

Viscosity, cps: 1,000 Specific Gravity: 0.98 Consistency mixed: light liquid
Pot-life at Room Temperature:120 minutes
Cure time at Room Temperature: 180 minutes
Cure time at 150°C: 15 minutes

Cured:

Cured	US-VSD-12180	US-VSD-15180	US-VSD-18180	US-VSD-18240
Shore A	30	10	<0	<0
Shore 00	80	60	1 to 2	<0
Dampening	low	medium	high	very high
Penetration	low	low	60	80

Mixing Instructions: The preferred method of mixing and application of gels is by using a 1:1 mix ratio by volume or weight and then degassing. These can also be mixed and dispensed through automatic equipment.

Depth of cure vs time: Within 30 to 60 minutes, any depth of application filled with this product will be cured and fully encapsulated.

Handling precautions: Avoid contact with tin cured RTV's, sulphur compounds, azides, imides, latex rubber gloves, and amines as cure system can be deactivated

Solids: 98% solids, contains no solvents

Adhesion: Peelable & Adhesive versions available. Please specify when ordering.

Service temperature: -65°C to +250°C continuous

Limitations: Do not use product on head gaskets, or in solvent or fuel immersion applications. Allow to fully cure before putting assembly into service.

Packaging: These gels are available in 50 ml. dual syringes, one pound kits, 16 lb. kits and 80 lb. kits. These product are also available in customer defined packaging sizes, upon request.

Handling and safety: For maximum shelf life, keep containers sealed when not in use. Keep out of the reach of children. Uncured sealant irritates eyes and skin. Refer to MSDS.

Shelf-life: Sealed containers guaranteed for 1 year from the ship date when stored in a cool dry area below 70°F.

Applicable standards: Conforms to GM low volatility requirements.

US-VSD-15183
Very Low Specific Gravity 2 Part Encapsulant Silicone Gel for Electronics

US-VSD-15183 is a room temperature curing silicone RTV gel developed for applications requiring a low specific gravity silicone gel product. This is a two part, 1:1 mix ratio silicone. Room temperature mixing results in a cure time of 1 hour. It can also be heat cured at 150°C to yield a cure time of less than 15 minutes. When cured, the elastomer resists weathering, ozone, moisture, UV and high temperatures.

Product Features
Addition cure liquid
Excellent moldability and conformation to plastic, metal and glass parts
Convenient 1:1 mix ratio

Color: Light Blue (custom colors available upon request)

Typical Applications
Electronic component vibration,
shock and thermal insulation
Potting and encapsulation
Dust and moisture protection
Dielectric and insulation

Chemical cure system: Platinum catalyzed, addition cure system.

Typical Properties	**Download PDF for Electrical Specifications***	
Uncured	Part A	Part B
Viscosity, cps	1,000	1,000
Specific Gravity	0.76	0.76

Consistency mixed: light liquid
Pot-life at Room Temperature: 30 minutes
90% cure at Room Temperature 45 minutes
Cure time at Room Temperature: 1 hour
Cure time at 150 C 15 minutes

Mixing Instructions: The preferred method of mixing and application is by hand using a 1:1 mix ratio by volume and then degassing. It can also be mixed and dispensed through automatic equipment.

Handling precautions: Avoid contact with tin cured RTV's, sulphur compounds, azides, imides, latex rubber gloves, and amines as cure system can be deactivated.

Depth of cure vs time: In 1 hour, any depth of application filled with this product will be cured and fully encapsulated.

Solids: 98% solids, contains no solvents

Adhesion: Offers minimal adhesion to most metals, plastics and types of glass.

Service temperature: -65 to 250C continuous

Limitations: Do not use product on head gaskets or in fuel or solvent immersion applications. Allow to fully cure before putting assembly into service.

Packaging: Available in 2.8 & 5.5oz squeeze tubes, 6.25oz sem kit cartridges, 50 ml. dual syringes, one pound kits, 20 lb. kits and 100 lb. kits. This product is also available in customer defined packaging sizes, upon request.

Handling and safety: For maximum shelf life, keep containers sealed when not in use. Keep out of the reach of children. Uncured sealant irritates eyes and skin. Refer to MSDS.

Packaging: Available in 2.8 & 5.5oz squeeze tubes, 6.25oz sem kit cartridges, 50 ml.dual syringes, one pound, 12 lb. and 60 lb. kits.

Shelf-life: Sealed containers guaranteed for 1 year from the ship date when stored in a cool dry area below 70°F.

Applicable standards: Conforms to GM low volatility requirements.

US-SPG-18417

Repenetrable 2 Part Low Specific Gravity Encapsulant Silicone Gel

US-SPG-18417 is a room temperature curing silicone RTV gel developed for electronic applications requiring a repenetrable self-sealing, silicone gel product. This is a two part, 1:1 mix ratio silicone that when mixed at room temperature, cures overnight or when exposed to heat results cures in 15 minutes.

Product Features

- Self-sealing over a long life
- Excellent repenetrability and conformation to plastic, metal and glass parts
- Convenient 1:1 mix ratio

Color: Transparent Blue (custom colors available upon request)

Typical Applications

- Assemblies requiring inspection with probes
- Electronic component vibration, shock and thermal insulation
- Potting and encapsulation
- Dust and moisture protection in a thick barrier coating
- Transparent dielectric insulation

Chemical cure system: Platinum catalyzed, addition cure system.

Typical Properties	**Download PDF for Electrical Specifications***	
Uncured	Part A	Part B
Viscosity, cps	1,000	1,000
Specific Gravity	0.98	0.98

Consistency mixed: light liquid
Pot-life at Room Temperature: >120 minutes
Cure time at Room Temperature: 12 hours
Cure time at 150°C 15 minutes

Mixing Instructions: The preferred method of mixing and application is by hand using a 1:1 mix ratio by volume and then degassing. It can also be mixed and dispensed through automatic equipment.

Handling precautions: Avoid contact with tin cured RTV's, sulphur compounds, azides, imides, latex rubber gloves, and amines as cure system can be deactivated

Depth of cure vs time: In 12 hours, any depth of application filled with this product will be cured and fully encapsulated.

Solids. 98% solids, contains no solvents

Adhesion. This product offers minimal primerless adhesion to plastics, metals and typical substrates.

Service temperature. -65°C to 250°C continuous

Limitations. Do not use product on head gaskets or in fuel or solvent immersion applications. Allow to fully cure before putting assembly into service.

Packaging. Available in 2.8 & 5.5oz squeeze tubes, 6.25oz sem kit cartridges, 50 ml. dual syringes, one pound kits, 20 lb. kits and 100 lb. kits. This product is also available in customer defined packaging sizes, upon request.

Handling and safety. For maximum shelf life, keep containers sealed when not in use. Keep out of the reach of children. Uncured sealant irritates eyes and skin. Refer to MSDS.

Shelf-life. Sealed containers guaranteed for 1 year from the ship date when stored in a cool dry area below 70°F.

Applicable standards. Conforms to GM low volatility requirements.