



Product Data Sheet

ASMACOAT HI-TEMP RTV SILICONE

DESCRIPTION:

ASMACO HI-TEMP RTV Silicone is a high-performance, single-component, non-sagging, 100% RTV (Room Temperature Vulcanizing) silicone sealant. It cures at room temperature when exposed to moisture in the air, forming a durable, rubbery solid. Engineered for high-temperature environments, it withstands continuous temperatures up to 300°C, making it well-suited for a range of demanding sealing and bonding applications. This versatile silicone adheres to many surfaces, ensuring strong bonds and seals in areas where heat resistance, flexibility, and durability are critical. Its non-corrosive, high-temperature formula makes it ideal for automotive, industrial, and general-purpose applications requiring reliable performance under extreme conditions.



KEY PERFORMANCE PROPERTIES

High Temperature Resistance:

- Withstands continuous temperatures up to 300°C, making it ideal for high-heat applications.

Single-Component, Easy Application:

- Simple, one-part sealant that requires no mixing and applies smoothly.

Non-Sagging Formula:

- Maintains its shape without sagging, even when applied vertically or overhead.

100% RTV Silicone:

- Cures at room temperature when exposed to ambient moisture, forming a tough, rubber-like solid.

Excellent Adhesion:

- Adheres effectively to a wide variety of substrates, including metals, glass, ceramics, and many plastics.

Durability:

- Offers a long-lasting, flexible seal that resists aging, cracking, and shrinking over time.

Non-Corrosive:

- Formulated to be non-corrosive, making it suitable for sensitive surfaces.

Weather and UV Resistant:

- Remains stable under exposure to weather, UV rays, and ozone, ensuring longevity in outdoor or exposed applications.

These properties make ASMACO HI-TEMP RTV Silicone ideal for demanding applications in automotive, industrial, and general-purpose settings where high temperatures and durable seals are essential.

AREAS OF APPLICATION

Automotive Industry

- Sealing and bonding components in engines, transmissions, and exhaust systems
- Gasket making and repairs for high-temperature areas

Industrial Equipment

- Sealing flanges, pipes, and other components exposed to extreme heat
- Bonding and sealing equipment housings, pumps, and heat exchangers

Electronics and Appliances

- Insulating and sealing parts in heat-generating appliances, such as ovens, stoves, and heaters
- Providing a thermal barrier around sensitive electronic components

Construction and HVAC Systems

- Sealing joints and gaps in heating, ventilation, and air conditioning (HVAC) units
- Bonding materials in high-temperature construction areas, including ducts and chimneys

Marine Applications

- Sealing components in marine engines and other high-heat areas exposed to water and environmental elements

General Sealing and Bonding

- Useful for high-temperature bonding and sealing in various general-purpose projects
- Ideal for applications requiring resistance to temperature fluctuations and environmental exposure

These applications highlight ASMACO HI-TEMP RTV Silicone's versatility and heat resistance, making it suitable for multiple industries where durable, high-temperature sealing is essential.

METHOD OF APPLICATION

Surface Preparation

- Ensure all surfaces are clean, dry, and free of dirt, dust, grease, oil, and old sealant residues.
- Clean non-porous surfaces (e.g., metal, glass) with a solvent like acetone or alcohol, then wipe with a clean, dry cloth.

For porous surfaces, use a wire brush or abrasive pad to ensure optimal adhesion

Rev 03, TDS ASMACO HI-TEMP RTV Silicone GCC 1024



Product Data Sheet

Masking

- Apply masking tape around the areas to be sealed to achieve neat, clean edges.
- Masking will also protect adjacent surfaces from excess sealant, reducing clean-up.

Sealant Application

- Cut the sealant nozzle at a 45° angle to your desired bead size, attach it to the cartridge, and load it into a caulking gun.
- Apply a continuous bead of sealant to the joint, ensuring full and even coverage.
- Avoid applying the sealant only on the surface—press it deeply into the joint for maximum adhesion.

Tooling and Smoothing

- Immediately tool and smooth the sealant with a finishing tool or spatula to create a uniform finish.
- For best results, use a convex tool to keep the sealant within the joint and prevent overspreading.
- Avoid using water, soap, or lubricants while tooling, as they may compromise adhesion.

Curing

- Allow the sealant to cure at room temperature. Curing time may vary depending on temperature, humidity, and joint depth, generally requiring 24-48 hours.
- Avoid disturbing the sealant until fully cured, as premature handling may affect adhesion and durability.

Storage Precautions

- Keep unused sealant in its original, tightly sealed container.
- Store in a cool, dry area, away from direct sunlight or extreme temperatures, to maintain its performance and shelf life.

Storage at Application Sites

- Do not store unused sealant on-site for extended periods, especially in extreme temperatures, as this may affect performance.
- Use all sealant promptly after removing from temperature-controlled storage to prevent issues like debonding, loss of cohesion, or cracking.

Important Application Notes

- Avoid applying sealant in wet conditions or at temperatures below +5°C. or in areas with standing water
- For applications where the sealant will have direct contact, allow it to fully cure before exposing it to high temperatures or moisture.
- Test on a small, inconspicuous area to ensure compatibility with coated or painted surfaces.
- Following these application steps will ensure optimal performance, adhesion, and durability of ASMCO HI-TEMP RTV Silicone in various high-temperature and demanding applications.
- For applications involving contact, allow the sealant to cure fully before exposure.
- Test the sealant on a small, inconspicuous area before full application, especially on coated or painted surfaces.
- Following these steps will ensure optimal performance, adhesion, and durability across various applications.

COVERAGE RATE

The approximate linear meter sealant consumption per liter can be estimated from the following formula:

$$\frac{W \times D}{1000}$$

= Sealant Consumption per linear meter per liter.

Where: W = Joint Width (mm), D = Joint Depth (mm)

Joint Size in mm	Liters/meter Run	280 ml/Cartridge meter run
4 x 4	0.016	17.50
6 x 6	0.036	7.70

PACKAGING / SUPPLYING

ASMCO HI-TEMP RTV Silicone is available in 280 ml Plastic Cartridge (24 Cartridges / Carton)

CLEAN UP

Clean all the equipment immediately with ANCHOR CLEANER 1

STORAGE & SHELF LIFE

ASMCO HI-TEMP RTV SILICONE Store in cool place under cover, out of direct sunlight and protect from extreme temperatures. In tropical climate the product must be stored in air – conditioned environment (< 25° C). The shelf life is up to 12 months in unopened conditions if stored as per guidelines.

Note:

Storing the ASMCO HI-TEMP RTV SILICONE beyond the specified date on the label doesn't automatically make it unusable. For quality assurance, it is crucial to confirm with ANCHOR ALLIED FACTORY LLC whether the properties required for the intended use remain intact in such instances.

HEALTH & SAFETY

Protective clothing such as gloves and goggles should be worn while applying ASMCO HI-TEMP RTV SILICONE. In case the material splashes to the skin or eyes wash the same with fresh water immediately.

- In critical cases seek medical a Storage at Application Sites
- Do not store unused sealant on-site for extended periods, especially in extreme temperatures, as this may affect performance.
- Use all sealant promptly after removing from temperature-controlled storage to prevent issues like debonding, loss of cohesion, or cracking.

QUALITY & CARE

All products originating from ANCHOR ALLIED FACTORY LLC Sharjah, UAE. facility is manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, and ISO 14001.

Rev 03, TDS ASMCO HI-TEMP RTV Silicone GCC 1024



Product Data Sheet

TECHNICAL SPECIFICATIONS

PROPERTIES	TYPICAL VALUES	TEST STANDARDS
Color	White / Black/Clear/Red/Grey/Blue	—
Consistency	Thixotropic (Non Sag)	ASTMC 920 -18/ASTM C 639 -15
Curing Mechanism	Neutral	—
Application Temperature	+5°C — + 40°C	—
UV Resistant	300 hours	ASTM C 793
Density, g/m ³	1.15 ±0.02	ASTM D 1475
Skin Over Time	10 min (RT)	ASTM C 920 -18 / ASTM C 679 - 15
Curing rate	> 2 mm/day (23°C and 50% R.H)	—
Hardness Shore A	25 - 35	ASTM D 2240
Adhesion & Cohesion	No, Cracks, Loss of Adhesion	ASTMC 920 -18/ASTM C 719 -14
VOC	48 g/L	USEPA
Elongation at Break	≥ 300 %	ASTM D 412
E 100 Modulus	≥ 0.50 N/mm ²	ASTM D 412
Tensile Strength	>1.50 N/mm ²	ASTM D 412

Properties listed are based on laboratory-controlled tests. All values given are subject to 5-10% tolerance.

Shipping Limitations: None

Note

The information and data contained in the product data sheet is believed to be accurate and reliable; however, it is the user's responsibility to determine suitability of the product for usage. Since the supplier cannot know all the uses, or the conditions of use to which the product may be exposed, no warranties concerning the fitness or suitability for particular use or purpose are made. It is the user's responsibility to thoroughly test any proposed use of our products and independently conclude satisfactory performance in the application. Likewise if the application, product specifications or manner in which our products are used require government approval or clearance, it is the sole responsibility of the user to obtain sure authorization.

Non – Warranty : Because the storage, handling and application of the material is beyond Anchor Allied Factory Ltd's control, we can accept no liability for the result obtained. Anchor Allied Factory Ltd's sole limited warranty is the product meets the manufacturing specifications in effect at the time of shipment. There is no warranty or merchantability or fitness for use, nor any expressed or implied warranty. Anchor Allied Factory Ltd will not be liable for any incidental and consequential damage of any kind. The exclusive remedy for breach of such limited warranty is a replacement of any product shown to be other than warranted. Suggestions of uses should not be taken as inducement to infringe any patents.

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MFG. OF SILICONE , ACRYLIC & POLYURETHANE SEALANTS, WATER PROOFING COATINGS,
SELF - ADHESIVE TAPES, SPRAY PAINTS, CONTACT ADHESIVE, PVC CEMENTS, EPOXY STEEL

Rev 03, TDS ASMACO HI-TEMP RTV Silicone GCC 1024

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