



Product Data Sheet

ASMACOAT HI-TEMP RTV SILICONE

DESCRIPTION: ASMACO HI-TEMP RTV Silicone is a high-performance, single-component, non-sagging, 100% RTV acetic-cure silicone sealant that cures at room temperature when exposed to atmospheric moisture, forming a durable and flexible rubber seal. It is formulated for high-temperature applications and withstands continuous temperatures up to 300°C, providing reliable sealing and bonding performance with good resistance to weathering, UV exposure, and temperature fluctuations. It is suitable for automotive, industrial, machinery, equipment, and general high-temperature sealing applications. Due to its acetic-cure chemistry, substrate compatibility should be verified before application, particularly on corrosion-sensitive metals and porous or alkaline substrates.



KEY PERFORMANCE PROPERTIES

High Temperature Resistance

- Continuous service temperature resistance up to **300°C**, subject to the specific application and substrate.

Acetic-Cure RTV Silicone

- One-component, moisture-curing silicone that cures at room temperature to form a flexible and durable rubber seal.

Non-Sagging

- Maintains its applied profile on vertical and overhead surfaces without significant sagging.

Adhesion

- Provides good adhesion to compatible non-porous substrates such as glass, ceramics, selected metals, and suitable plastics.

Flexibility & Durability

- Maintains flexibility after curing and provides resistance to aging, cracking, and shrinkage under suitable service conditions.

Weather & UV Resistance

- Provides good resistance to weathering, UV exposure, and ozone for suitable indoor and outdoor applications.

Temperature Cycling Resistance

- Suitable for applications subject to repeated temperature fluctuations within the recommended service-temperature range.

AREAS OF APPLICATION

Automotive & Mechanical Equipment

- Sealing and gasket-forming applications around suitable engine components, covers, housings, and other high-temperature assemblies.
- Sealing suitable components exposed to elevated temperatures, subject to substrate compatibility.

Industrial Equipment

- Sealing and bonding of compatible components in machinery, heating equipment, ovens, furnaces, and other high-temperature equipment.
- Sealing suitable flanges, covers, housings, and joints where an acetic-cure silicone is compatible with the substrate.

Appliances & Heating Equipment

- Sealing around suitable ovens, stoves, heaters, and other heat-generating appliances.
- High-temperature sealing of compatible glass, ceramic, and metal components.

HVAC & Mechanical Applications

- Sealing suitable joints, gaps, housings, and components in HVAC and mechanical equipment where the substrate is compatible with an acetic-cure silicone.

General High-Temperature Sealing

- Sealing and bonding of compatible non-porous substrates exposed to elevated temperatures.
- Applications requiring flexibility, durability, weather resistance, and resistance to temperature fluctuations.

Substrate Compatibility

- ASMACO HI-TEMP RTV Silicone is an acetic-cure silicone sealant and releases acetic acid during curing. Therefore, it should be used only on substrates that are compatible with acetic-cure silicone.

Not recommended for use on corrosion-sensitive metals, concrete, marble, limestone, or other alkaline/porous substrates where the curing by-products may adversely affect the substrate. Substrate compatibility should be confirmed before application.

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.



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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 ASMACO 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.

PACKAGING / SUPPLYING

ASMACO 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**

HEALTH & SAFETY

Protective clothing such as gloves and goggles should be worn while applying **ASMACO 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.

STORAGE & SHELF LIFE

ASMACO HI-TEMP RTV is temperature sensitive and should be stored in a cool, dry, and covered area, protected from direct sunlight, heat sources, and excessive ambient temperatures. Prolonged exposure to elevated temperatures, including storage in shaded but excessively hot areas, may accelerate product ageing, reduce the stated shelf life, and adversely affect application and performance characteristics.

In hot climatic conditions, **ASMACO HI-TEMP RTV** must be stored at temperatures below 30°C. Avoid prolonged exposure to extreme temperature fluctuations during storage and transportation.

When stored in its original, unopened packaging under the recommended temperature conditions, the product has a shelf life of up to 12 months from the date of manufacture.

Stock should be managed and consumed on a **First-In, First-Out (FIFO)** basis to ensure optimum shelf life and consistent product performance.



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COVERAGE RATE

Note: Coverage values are theoretical and calculated for a round bead with 100% material utilization. Actual coverage may vary depending on gap/bead dimensions, application technique, surface conditions, and wastage during application.

Bead Size (mm)	Approximate Consumption (ml/m)	Coverage per 280 ml Cartridge (Running Meter)
3 mm	7.1	39.6 m
4 mm	12.6	22.3 m
5 mm	19.6	14.3 m
6 mm	28.3	9.9 m
7 mm	38.5	7.3 m
8 mm	50.3	5.6 m
9 mm	63.6	4.4 m
10 mm	78.5	3.6 m
11 mm	95.0	2.9 m
12 mm	113.1	2.5 m

Always conduct a mock-up test before installation to ensure the required bond strength is achieved, as performance may vary with fixture weight and application conditions

GAP filling:

	BONDING Width mm	Ø of bead for gap mm
min	5	5
	10	10
max	12	12

CERTIFICATIONS



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	Acetic	—
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



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Regional Compliance Notice

Please note that regulatory requirements may vary from one region to another. As a result, product information and recommended applications may differ between countries. For accurate and up-to-date details on product specifications and approved uses, and for any technical guidance, please contact Technical Department of ANCHOR ALLIED FACTORY L.L.C. SHARJAH, UAE.

Disclaimer

The technical information, data, and recommendations provided by ANCHOR ALLIED FACTORY L.L.C. SHARJAH, UAE are supplied in good faith based on current knowledge and experience and are intended for general guidance only. Product performance may vary due to factors beyond ANCHOR ALLIED FACTORY L.L.C. SHARJAH, UAE's control, including materials, substrates, environmental conditions, and methods of application.

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