

TECHNICAL DATA SHEET

Chem-SetTM RTV4500A

Features

- 100% Acetoxy RTV Silicone
- Mold & Mildew Resistant
- Resistant to UV Degradation And Weathering
- Withstands Extreme Cold & Extreme Heat
- 25% Joint Movement Capability
- One-Component, Easy To Use Formulation

Additional Features

- Easy to Extrude At Cold Temperatures
- Non-Slump, Can Use On Overhead & Vertical Applications
- Excellent For Indoor & Outdoor Applications
- Creates A Waterproof Seal

Conforms, Meets & Exceeds

- ASTM C920 Class 25, Type S, Grade NS, Use NT, G, O
- TT-S-01543A
- TT-S-00230-C
- MIL-A-46106A
- NSF Standard 51
- FDA Regulation No. 21 CFR 177.2600
- UL Recognized
- VOC Compliant (23 grams/liter ASTM D2369)

Description

Chem-Set RTV4500A 100% Silicone is a one-component, moisture cure, acetoxy silicone that cures to form an extremely durable rubber that can withstand a variety of extreme environments. Unlike many organic sealants, **Chem-Set RTV4500A** is extremely resistant to degradation, weathering, extreme temperatures and mold and mildew. **Chem-Set RTV4500A** meets the requirements of NSF Standard 51 and FDA Regulation No. 21 CFR 177.2600 for food grade applications.

Chem-Set RTV4500A 100% Silicone can be applied to both vertical and overhead joints without sagging and is easy to extrude at both hot and cold temperatures. It will adhere to most common building materials (see list on back of TDS).

Physical Properties	Test Method	Result
Viscosity	CC Test Method	902,000 cps (Spindle 7, 4rpm)
Skin Formation Time	CC Test Method	10 minutes (70°F, 50% RH)
Density	ASTM D1475	8.5 lbs./gal
Hardness	ASTM C661	25 (Shore A)
Extrusion Rate	CC Test Method	365 g/min
Tensile Strength	ASTM D412	264 psi
Elongation at Break	ASTM D412	500%
Application Temperature	CC Test Method	-35°F to 150°F
Gun Grade	CC Test Method	Pass (Non-Slump)
QUV Testing	ASTM G154	Pass (10,000 hrs)
Service Temperature	CC Test Method	-70°F to 400°F
Typical Cure Rate	CC Test Method	24 hrs. (1/8" bead)

Strength will start to develop immediately and continue increasing for 7 days after application. Chemical Concepts recommends testing strength and adhesion on the 7th day. Chem-Set RTV4500A suggested application temperature range: -35°F to 150°F. Chem-Set RTV4500A can be used at temperatures higher than 400°F for intermittent periods. Testing should be done to confirm temperature requirements are met.

Information on this data sheet can change without notice and it is therefore not recommended that these figures be used in spec writing. If you have any questions contact manufacturer's sales and technical service department.

Common Applications:

Chem-Set RTV4500A is an excellent sealant/adhesive for many Commercial, Industrial and Construction applications. Such applications include:

- Walk-In Freezer Manufacturing & Installation
- RV & Trailer Manufacturing
- Countertop Installation & Sealing
- Formed-In-Place Gasket Applications
- Industrial Manufacturing Applications
- Bathroom Installation & Sealing
- HVAC Applications
- Fireplace Manufacturing
- Appliance Manufacturing
- Sheet Metal Work & Sealing
- Marine Applications
- General Sealing & Bonding Applications
- **Can be used for additional applications not listed.**
Chemical Concepts recommends testing prior to use.

Directions

Chem-Set RTV4500A is ready to use and requires no mixing or additives. Tooling, if necessary, should be done before skinning takes place. In applications where partial or total confinement of sealant is prevalent, the time required for proper cure is generally lengthened by the degree of confinement. Higher temperature and higher humidity will accelerate skin & cure time. Cold temperatures and low humidity will slow down skin & cure time.

Colors

Chem-Set RTV 4500A is available in clear, white, black, aluminum, almond, bronze, gray, trans white, trans blue, trans rose, trans green, trans charcoal, trans beige, trans earth and trans gray. Additional colors can be available for purchase. Inquire to Chemical Concepts sales staff for additional information.

Packaging

Chem-Set RTV 4500A is stocked in squeeze tubes, cartridges, pails and drums. It can also be packaged into quart cartridges, sausage packs and pouches. Additional packaging may be available upon request. Inquire to Chemical Concepts sales staff for additional information.

Caution/Safety

Please refer to the SDS for the corresponding product for information regarding safety and handling.

Limitations

Do not store at elevated temperatures. Use only on clean surfaces free of contaminants. Cold temperature and low humidity will slow curing. Do not use on porous surfaces such as concrete, mortar or brick. It is not paintable.

Common Bonding Substrates:

Chem-Set RTV4500A can be used on a variety of substrates. Please inquire or test your substrates before use. Substrates may vary with manufacturer. We have listed some common substrates:

- Glass
- Granite
- Marble
- Metal
- Most Types Of Woods
- Most Fiberglass
- Aluminum
- Ceramic
- Natural & Synthetic Fiber
- Most Painted Surfaces
- Some Plastics
- **Can be used on additional substrates not listed.**
Chemical Concepts recommends testing prior to use.

Surface Preparation

All surfaces should be dry and clean. Alcohol or acetone can be used to clean the surface depending on the substrate. Priming for **Chem-Set RTV4500A** is not normally required. If a primer is required, please inquire to Chemical Concepts sales staff. Unprimed adhesion can be easily tested by applying a small trial bead and allowing 7 days for maximum adhesion to occur. If primer is required, contact Chemical Concepts.

Testing

Test per application requirement. Allow 7 days for maximum strength to develop before testing adhesion or strength.

Storage

When stored at 70°F and 50% RH, **Chem-Set RTV4500A** has a shelf-life of 24 months in cartridges, squeeze tubes, pails & drums. High temperature and high humidity can significantly reduce shelf-life.

Warranty Limitations

The information and data contained herein is believed to be accurate and reliable; however, it is the user's responsibility to determine suitability of use. Since the supplier cannot know all the uses, or the conditions of use to which these products may be exposed, no warranties concerning the fitness or suitability for a 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 requires government approval or clearance, it is the sole responsibility of the user to obtain such authorization. Because the storage, handling and application of the material is beyond Chemical Concepts control, we can accept no liability for the results obtained. Chemical Concepts sole limited warranty is that the product meets the manufacturing specifications in effect at time of shipment. There is no warranty of merchantability or fitness for use, nor any other express or implied warranty. Chemical Concepts will not be liable for incidental or consequential damages of any kind. The exclusive remedy for breach of such limited warranty is a refund of purchase price or replacement of any product shown to be other than as warranted. Suggestions of uses should not be taken as inducements to infringe upon any patents.