

AF705 SILICONE SEALANT

100% ACETOXY GENERAL PURPOSE SEALANT

CERTIFICATION

TECHNICAL DATA



FOR INSTALL SUPPORT
sales@allfasteners.com



FOR SPECIFICATION SUPPORT
certs@allfasteners.com



FOR CUSTOMER SUPPORT
888.859.6060





AF705 SILICONE SEALANT

100% ACETOXY GENERAL PURPOSE SEALANT

AF705 General Purpose Silicone is a neutral cure sealant specially formulated for a wide range of uses. AF705 is a high performance acetoxy curing silicone sealant that demonstrates high strength adhesion and excellent weatherability under the most severe conditions.

This silicone has been specially formulated to meet low VOC requirements and is recognized for its smooth consistency, low temperature application, ease of tooling, and quick cure time.

It is ideal for glazing, weather sealing, metal assembly and many other professional trade applications.



KEY BENEFITS

- Neutral cure – will not corrode concrete or zinc coated / galvanized steel
- Permanently flexible; \pm 20% joint movement
- Resistance to weathering and UV radiation
- Resistant to vibration
- Strong adhesion
- One part - no mixing
- Sag resistant – can be used in vertical and over head joints
- Finishes: translucent clear, aluminum & white

STANDARDS & APPROVALS

Upon cure, AF705 is a medium modulus, permanently elastomeric material that meets ASTM-C920 performance standards and can withstand \pm 25% joint movement. AF705 can be used for extended periods at temperatures up to 400°F (232°C).

AF705 is an NSF 51 Certified Silicone Sealant, making it the ideal caulk to use in and around food processing and storage.

- V.O.C. Content: 36 g/l
- LEED 2009 (EQ Credit 4.1): 1 Point
- NAHB Green Guidelines: 5 G.I. Points
- Complies to: SCAQMD Rule: #1168
OTC-Ozone Trans. Comm.
CARB
BAAQMD
- Meets NSF 51 Certification Criteria
- Meets ASTM-C920 Performance Criteria
- Meets Federal Spec. TT-S-00230C

APPLICATIONS

- Exterior windows, skylight doors and siding
- Kitchen, bath, & restaurant tile, sinks tubs and counters
- HVAC/R, plumbing, electrical, roofing
- RV, trailer and specialty vehicle manufacture and repair
- Industrial seals
- Walk-in coolers, ice machines, and other types of refrigeration units
- Piping, seals gaskets and valves where contact with food may occur
- Exterior cladding
- Guttering
- Flashing
- Down pipes

FOR USE IN/ON

- Steel
- Aluminum
- Galvanized iron
- Masonry
- Ceramic tiles
- Grout
- Laminated plastic
- Zincolume
- Glass
- Most plastics (pretest for compatibility)



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CHEMICAL RESISTANCE

Resistant to water, salt water, grease, oils, fuels, defrosting liquid, detergents, aliphatic fats, mildew, weak acids and bases (pre testing required).

CURING

The rate of cure depends on the air temperature and humidity, the cross sectional area of the bead of sealant and the surface area of sealant exposed to the air. At 77°F and 50% relative humidity cure rate is 2 mm / 24 hours. In general, low humidity and/or low temperature will result in longer cure times. Thicker sections of sealant will have longer cure times. A small surface area in relation to the volume of sealant will also extend the cure time. Ensure that the depth of the sealant in a joint never exceeds its width.

SHELF LIFE

AF705 General Purpose Silicone will remain suitable for use for 12 months from date of manufacture, if stored in original container, unopened, in cool dry place in temperatures less than 86°F.

Once opened, the contents should be used as soon as possible. The life of contents of an opened cartridge can be extended if the nozzle is left in place after use and the tip is wrapped in plastic film.

SHELF LIFE

This product is not considered to be hazardous. Store in a dry place below 122°F. Contains Crystalline Silica. Use only with adequate ventilation. Avoid contact with eyes and skin. Wash hands after using. Do not transfer content to other containers for storage. **Keep out of reach of children.**

SURFACE PERPARATION

All surfaces must be clean, dry, sound and free of dust, oil, old sealant or other contamination. Lightly contaminated surfaces should be wiped with Isopropyl Alcohol (IPA) using the 2-rag wipe method. Apply IPA to a clean lint-free cloth and wipe onto the surface to be cleaned to solubilize and remove the majority of the contaminant. A clean dry cloth should then be applied to remove remaining contamination and dry the surface. Ensure wet cleaner is not allowed to dry on surface.

For more heavily contaminated surfaces or where the IPA does not remove the contaminant, a generic wax and grease remover should be applied using the same 2-rag wipe method. Once this has been completed, the surface should be given a final clean with IPA using the 2-rag wipe method to ensure the surface is adequately prepared.

Adhesion to metals and some surface finishes can be further improved by light abrasion prior to cleaning with IPA using the 2 rag-wipe method. For glazing applications IPA should be used to clean and prepare the surface. Manufacturers of plastics should be consulted about suitable cleaning solvents. Adhesion to plastics should be pre-tested.

Mask either side of joint to produce a neat finish. Use a suitable sized foam backing rod or polyethylene bond breaker tape to prevent three sided joint contact impeding the free and even deformation of the sealant in a cyclic joint.



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CLEAN UP

1. Cut seal on top of cartridge. Screw on nozzle and cut to desired bead size. Insert cartridge into desired caulk gun.
2. Hold gun at 45° angle and apply by pushing sealant ahead of nozzle to achieve a smooth seal. Apply using a steady, even pressure to completely bridge joints.
3. Complete tooling within 5 minutes. Use dry paper towel to remove excess material. Smooth caulk using wet finger or damp cloth for a clean, neat appearance.
4. Sealant normally “skins over” in 5 minutes, dries to touch in 1 hour and cures and bonds in 24 hours. Allow 7 days cure time to reach maximum strength.

APPLICATION LIMITATIONS

- Structural silicone glazing
- Joints where physical abuse or abrasion is likely to be encountered
- Prolonged water immersions
- Porous surfaces, such as masonry building materials that might bleed oils, plasticizers, or solvents
- Materials such as impregnated wood, oil based caulks, green or partially vulcanized rubber or gasket tapes
- Totally confined spaces, as sealant requires atmospheric moisture for cure

PHYSICAL PROPERTIES

TABLE 1: PHYSICAL PROPERTIES OF AF705 SILICONE SEALANT

CHEMISTRY	Acetoxy silicone
CURE TYPE	Moisture cure
COLOR	Aluminum, translucent, white
SHELF LIFE	12 months
TACK FREE TIME	5 - 7 minutes at 75°F
CURE TIME	24 - 48 hours at 75°F
APPLICATION TEMP.	-25°F to 120°F
SERVICE TEMP.	-55°F to 400°F
JOINT MOVEMENT CAPABILITY	+/- 25%
DUROMETER SHORE A	18
TENSILE STRENGTH	303 psi
ELONGATION AT BREAK	337%

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PERFORMANCE DATA**TABLE 2: PERFORMANCE DATA OF AF705 SILICONE SEALANT**

SPECIFIC GRAVITY	0.97
SAG	Nil
SKINNING TIME	15 - 25 min., 25°C, 50% RH
CURE RATE	1 - 2 mm/day
FULL CURE	After 7 days
JOINT MOVEMENT	+/- 20%
COVERAGE	300 mL cartridge will give approximately 15 lineal meters of 5mm bead
SHORE A HARDNESS	26
ELONGATION AT BREAK	337%

ORDERING INFORMATION**TABLE 3: ORDERING INFORMATION OF AF705 SILICONE SEALANT**

PART NUMBER	DESCRIPTION	SIZE	COLOR	QTY/BOX
12AF705A-10	AF705 Silicone Sealant	10.1 oz. Tube	Aluminum	12
12AF705C-10	AF705 Silicone Sealant	10.1 oz. Tube	Translucent Clear	12
12AF705W-10	AF705 Silicone Sealant	10.1 oz. Tube	White	12

DISCLAIMER

Recommendations for use of this product are based on tests we believe to be reliable. AllFasteners is not responsible for results where this product is used under conditions beyond our control. If clarification or further information is needed to ensure that an appropriate assessment can be made, the user should contact AllFasteners. Our responsibility for the products sold is subject to our standard terms and conditions, which is available upon request.