



American Sealants, Inc.

"High Performance Silicones, Sealants, and Adhesives"

ASI 600 High Temperature Silicone Sealant

PRODUCT DATA SHEET

OEM Industrial and Construction Product

Features:

- High Temperature Silicone Sealant
- High Performance, Excellent Adhesion
- Resistant to UV degradation and Weathering
- Meets a wide variety of building standards
- Withstands Temperatures up to 600°F
- Bonds to a Variety of Common Substrates
- Excellent Tensile Strength and Versatility

Additional Benefits:

- Contains No Solvents or Isocyanates which makes ASI 600 VOC Compliant
- Easy to Dispense and work with at a Variety of Extreme Temperatures
- Flexible and very resistant to vibration
- Tack Free Time 10 - 20 minutes

Description:

ASI 600 High Temperature Silicone Sealant Adhesive is a one-part, moisture curing, RTV (room temperature vulcanizing) silicone that cures to form a tough rubber gasket. ASI 600 was specifically formulated to be used where operating temperatures up to 310°C (600°F) are reached intermittently. ASI 600 will remain permanently flexible and provides excellent resistance to aging, vibration and shock. ASI 600 contains red iron oxide which enables it to be a true high temperature silicone that will continue to be resilient at extreme temperatures. Due to its properties this makes it ideal for a variety of applications including formed-in-place gasketing and other automotive applications. ASI 600 can also be used on a variety of construction and industrial application where its heat resistance is needed.

Common Applications:

ASI 600 is an excellent sealant and/ or adhesive for many Commercial, Industrial, and Construction applications where a long-term, permanently flexible bond or seal is required. Such applications include:

- OEM Applications (depending on substrates)
- Industrial Ovens
- HVAC
- High Temperature General Sealing and Waterproofing
- Automotive Applications
- General Industrial Applications
- Water and Oil Pump Seals
- Wire and Cable Insulation
- Furnace and Humidifier Gaskets
- Engine Components
- Smoke Stacks
- Telecommunications Including Coaxial Cable Connectors
- Etc. (Can be used for various applications depending upon substrate)

Common Bonding Substrates:

ASI 600 can be used on a variety of substrates that are not listed below. Please inquire or test on those substrates. We have listed some common substrates for your viewing:

- Aluminum
- Ceramics
- Painted Surfaces
- Glass
- Granite
- Marble
- Metals
- Most Woods
- Most Plastics
- Porcelain
- PVC
- Steel
- Etc. (substrates may vary depending upon application)

Meets and exceeds: TT-S-001543A (Silicone Building Sealants), TT-S-00230C (One Component Building Sealant) and ASTM C-920-86.



Directions:

ASI 600 is ready to use and requires no mixing or additives. The cure mechanism begins as soon as the sealant comes in contact with the air. At conditions of 25°C (77°F) and 50% relative humidity, the sealant will skin in 10 minutes and fully cure in 24 hours (1/8" bead) and reaches its maximum adhesion in 7 days. Higher humidity accelerates cure. 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.

Listed Properties:

UNCURED:

Type	One-part, gasket maker
Appearance	Smooth, non-slump red paste
Specific Gravity	1.18
Extrusion Rate	250g/min (1/8" bead 90 psi)
Application Temperature Range	-18°C to +50°C (0°F to +120°F)
Cure Method	Acetoxyl, moisture cure
Skin Over Time	10 minutes
Cure Time	24 hours (1/4" bead)
Slump/Sag	Nil

CURED:

at 25°C (77°F) and 50% R.H. for 7 days (1/4" bead)

Durometer Hardness (Shore A) (ASTM D 2240)	33
Tensile Strength (ASTM D 412)	350 psi
Elongation at Break (ASTM D 412)	400%
Tear Resistance (ASTM D 624, Die B)	50 psi (2.7kN/m)
Temperature Range After Cure Short Periods	-57°C to 310°C (-70°F to 600°F)
Temperature Range After Cure Continuous Operation	-57°C to 260°C (-70°F to 500°F)
Shrink Factor	Nil

MILITARY SPECIFICATIONS:

ASI 600 meets the requirements of MIL-46106 Type 1.

CONSTRUCTION SPECIFICATIONS:

TT-S-001543A (Silicone Building Sealants), TT-S-00230C (One Component Building Sealant) and ASTM C-920-86.

Storage:

ASI 600, when stored in original, unopened container at or below 32°C (90°F), has a shelf life of 12 months from date of shipment.

Surface Preparation:

All surfaces should be clean and dry. If necessary, bonding surfaces can be solvent wiped with naphthas, ketones or chlorinated solvents. Specific solvents would include xylol, toluol and mineral spirits. In case of plastics, determine suitability of solvent prior to use. Allow surface to dry thoroughly before applying sealant. Do not solvent wipe with alcohols or oil-containing solvents such as Varsol. Priming for ASI 600 is not normally required for applications to nonporous surfaces. 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 ASI.

Colors:

ASI 600 is available in High Temperature Red.

Packaging:

ASI 600 is supplied in:
(2.8 fl. oz.) squeeze tube
(10.2 fl. oz.) caulking cartridge,
(40 lb.) pail and (451 lb.) drum.

Special Packaging Available upon requests.

Safety Precautions:

ASI 600 releases small amounts of acetic acid during cure. Adequate ventilation should be provided with extensive use of this sealant. On direct contact, uncured sealant may irritate eyes. Flush eyes well with water and call a physician. Avoid prolonged contact with skin.

Warranty Limitations:

ASI warrants only that its products will meet its specifications. ASI shall in no event be liable for incidental or consequential damages. Except as expressly stipulated, ASI's liability, expressed or implied is limited to the stated selling price of any defective goods.

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.