



American sealants, Inc.
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Product Data

ASI 600 Hi-Temperature Silicone Sealant/Adhesive

DESCRIPTION

ASI 600 is a one-part, moisture curing, RTV (room temperature vulcanizing) silicone that cures to form a tough, durable weather.

ASI 600 was specifically formulated with red iron oxide to withstand operating temperatures up to 310°C (600°F) are reached intermittently. ASI 600 will remain permanently flexible, be resistance to weathering, adhere to a variety of substrates, and provide excellent resistance to aging, vibration and shock.

TYPICAL USES

The primary use for ASI 600 is formed-in-place gaskets in high temperature applications to replace conventional paper and cork gaskets. Such uses include:

Automotive

- valve covers
- axle housings
- water and oil pump seals
- thermostat housings
- bearing cap seals
- timing chain covers
- fuel pumps to blocks
- solenoid covers

Industrial

- pump and compressor gaskets
- appliance door gaskets
- humidifier gaskets
- air conditioner gaskets
- repairing torn silicone rubber sheets
- ductwork gaskets
- dust collection components
- wire and cable insulation
- furnace door gaskets

ADDITIONAL USES

There are a variety of other common uses for the ASI 600 since it has such excellent adhesion to a variety of substrates and has true heat resistance. Substrates include metals, Kynar coated metals, silicone, wood, glass, most plastics and other non-porous substrates.

SURFACE PREPARATION

All surfaces should be clean and dry. If surfaces are contaminated it is recommended that bonding surfaces be solvent wiped with a naphtha, ketone or chlorinated solvent. Suitable solvents include xylol, toluol and mineral spirits.

Do not solvent wipe with alcohols or oil-containing solvents such as Varsol.

For gasket applications, apply an even bead, with a diameter of 1/8 or less, to one surface, making certain to surround all bolt holes. Press, do not slide parts together, and torque normally. On surfaces where adhesion is not desired, a light coat of oil or grease will act as a release agent.

If removal of ASI 600 is necessary, it can be wiped off surfaces to be mated when uncured. After the material cures, it can be abraded or scraped from the surface.

ASI 600 is not recommended as a gasket for cylinder heads, manifolds or in contact with fuels.

USDA STATUS

American Sealant, Inc., has on file documentation from the USDA that states ASI 600 sealants are chemically acceptable for use on structural surfaces in official establishments operating under the Federal Meat and Poultry Inspection Program.

The final granting of authorization for the proposed use of such compounds is the responsibility of the inspector in charge of the official plant. Technical assistance will be provided by the Product Safety Branch of the USDA upon request.

SPECIFICATIONS

ASI 600 meets the requirements of MIL-A-46106A Type 1 and meets FDA, USDA requirements.

SAFETY PRECAUTIONS

ASI 600 releases small amounts of acetic acid during cure. After cure, acetic acid odor disappears. Adequate ventilation should be provided with extensive use of this sealant.

On direct contact, uncured sealant will irritate eyes. Flush eyes well with water and call physician. Avoid prolonged contact with skin.

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 cure within 24 hours (1/4 bead), ultimate cure in 7 days.

TYPICAL 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	Acetoxy, 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 ppi (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

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.

PACKAGING

ASI 600 is supplied in:
(10.2 fl. oz.) caulking cartridges,
(40 lb.) pails and (495 lb.) drums.

WARRANTY AND LIMITATIONS

ASI 600 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.

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