US-HS-471

High Strength Fast Cure Aerospace Silicone Adhesive Sealant

US-HS-471 is a fast curing, high strength, 1-part acetoxy silicone RTV adhesive rubber product engineered for highly demanding aerospace applications. Offers greatly accelerated adhesion and quicker development of physical properties as compared to conventional silicone RTV's. When cured, the elastomer resists weathering, ozone, moisture, UV and high temperatures. Works well in manual and automatic dispensing equipment.

Product Features

- Fast Room Temperature cure
- Accelerated onset of adhesion
- Thixotropic paste
- Excellent unprimed adhesion to plastic, metal and glass
- Convenient, heat accelerated instant cure capability

Typical Applications

- Assembly line adhesive
- Form in place gaskets
- Adhesive Sealant

Heat Accelerated Curing: Typical utilization involves dispensing in open air and ambient humidity to result in a high strength adhesive rubber. However, cure speed can be accelerated with hot air to nearly instant cures exhibiting very fast adhesion. A one minute hot air stream exposure, followed by a one minute cool down in a humid environment, results in cured elastomer condition exhibiting outstanding adhesion.

Method of Application: Dispense dressing onto gasket and flange surface. Install component and tighten fasteners to the manufacturer's torque specifications, thus sealing all surface irregularities with the fastener clamping force.

Chemical cure system: Oxime cure system

Typical Properties

Uncured

Color: Gray	Viscosity, cps: 500,000	Specific Gravity: 1.12
Consistency: thixotropic paste	Working time, mins: 4	Tack Free Time, mins.: 12
Application Rate: 90 PSI, g/min, 3mm orifice at 0.6 MPa: 250		

Cured - Room Temperature

Max. Operating Temp.: 250 C

Physical properties:

Tensile Strength, PSI: 1000	Elongation, %: 850	Durometer, Shore A: 38
Peel Strength, PPI: 50	Tear Strength, PPI: 100	Lap Shear Strength, PSI: 330
Dielectric Strength, V/mil: >500	Dielectric Constant: 2.8	Dissipation Factor: 0.001
Volume Resistivity: 2.0×10^{14}	Thermal conductivity: 0.0005	
Coefficient of Thermal Expansion: 20 x 10-5		

Method of Application: Dispense sealant onto part and mate parts. Do not squeeze all of the product out of flange assembly. Allow to cure.

Chemical cure system: Acetoxy cure system

Solids: 98% solids, contains no solvents

Adhesion: Primerless adhesion to most plastics, metals and typical substrates.

Limitations: Do not use product on head gaskets, fuel or solvent immersion applications. Allow sealant to fully cure before putting assembly into service. Ensure enough product remains between flanges to be effective in an assembly.

Packaging: Available in 2.8 & 5.5oz squeeze tubes, 6.25oz sem kit cartridges, 10.3 oz. cartridges, 40 lb. pails and 400 lb. drums. This product is also available in customer defined packaging sizes, upon request.

Handling and safety: For maximum shelf life, keep containers sealed when not in use. Keep out of the reach of children. Uncured sealant irritates eyes and skin. Refer to MSDS.

Shelf-life: Sealed containers guaranteed for 1 year from the ship date when stored in a cool dry area below 70°F.