BOSTIK 936
High Performance, High Temperature Industrial Silicone Sealant

6 December 2017

YOUR SMART ADVANTAGES
- Industrial Qualities
- One component product
- Sealing and bonding applications exposed to temperatures as high as 350°C.
- The thixotropic nature of this product ensures that it will not slump, sag or run off surfaces.
- Good resistance to weathering & moisture.
- Resistant to some motor oils and chemicals.
- Curing can be accelerated by dry heat up to 150 °C.
- Excellent temperature range. (-60°C to + 275°C intermittent exposure to 350°C)
- 100% silicone rubber / elastomer.
- Meets the requirements of many industrial, mining, OEM applications.
- Excellent electrical insulation properties.
- Excellent weatherability and ozone resistance.

DESCRIPTION
Bostik 936 is a one part non slump silicone sealant designed for sealing and bonding applications exposed to temperatures as high as 350°C (650°F).

USES
Industrial applications – bonding/sealing – stable at very high temperatures, up to 350°C
Industrial ovens and boilers
Domestic cookers and ovens
Sealing and encapsulating heating elements in appliances
Flues on gas appliances
Household electrical and industrial heating equipment
Pipe Flanges – High Temperature
Smoke stacks
Moving oven belts

ONE PART SYSTEM
Being a one-part industrial sealant – Bostik 936 offers the confidence of consistent even cure. It also improves operator productivity, as time is not lost mixing the product, is easy to use in difficult locations, and can be applied using a standard cartridge gun.

LONG LIFE RELIABILITY
Bostik 936 has excellent natural ageing stability. It will maintain its elastomeric joint sealant properties permanently, even under harsh conditions and temperature extremes.

DIRECTIONS FOR USE

SURFACE PREPARATION
Always ensure that the surfaces to be sealed are dry and free from oil, dirt and grease.

Use the two-wipe process for impervious substrates. Ensure the cloths are clean and changed frequently, and use a suitable cleaner/solvent such as IPA.

APPLICATION
When extruding the sealant cut the nozzle to the desired width, cut the tip off the cartridge, and apply the sealant firmly to ensure good contact between the sealant and the substrate.

Before the sealant has skinned, tool it off to ensure a good finish, and to improve the wetting out of the sealant to the substrate.
Clean / wipe of excess sealant with clean cloth or polyethylene scraper. Masking tape can be used.
(Masking tape must be removed before skin over starts)

LIMITATIONS
COMPATIBILITY WITH ADJACENT SUBSTRATES
Silicones are not always compatible with plasticised sealants, such as butyls.
Also some backing rods and bitumen or other agents may be incompatible with RTV silicone.
The incompatibility may cause discolouration, poor sealant cure or long term degradation of the sealant.
Always carry out compatibility tests where contact with potentially incompatible materials occurs. (Bostik offers this service via our labs facilities for projects)
LIMITATIONS Cont.

BOSTIK 936 NOT suitable for the following applications:

- As the sealant requires atmospheric humidity to cure, it will not cure in totally confined spaces where there is an absence of these conditions.
- Adhering Mirrors
- Laminated Glass
- Reflective Glass
- Some under Water Applications eg: preformed & concrete swimming pools.
- N.B. This product is suitable for some applications where the sealant is in contact with water for extended periods. Please contact Bostik to confirm your design details before commencing such an application.
- Concrete, Cement, Masonry and porous substrates
- All natural stones e.g.: granite etc.
- Soft thin metals, such as Galvanizing, Zincalume®, Brass, Bronze and Copper.
- Horizontal walkways.
- Do not clean or treat the sealant with materials, cleaning agents or solvents that may affect or discolor the sealant, particularly during product curing.

PROPERTIES

1.1 BEFORE CURING

PRODUCT CHARACTERISTICS

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour</td>
<td>Red</td>
</tr>
<tr>
<td>Appearance</td>
<td>Non-flowing Paste</td>
</tr>
<tr>
<td>Crosslinking Type</td>
<td>Acetic</td>
</tr>
<tr>
<td>Specific Gravity @25°C</td>
<td>1.04</td>
</tr>
</tbody>
</table>

Product Code

300gm cartridges/15 per carton 30804666

NOTES: The product is delivered ready for use and the properties make it easy to apply. It can be applied manually or using automatic equipment. Surfaces should be clean and dry before applying. It is recommended to apply RTV 936 onto a dry, clean surface. Flexible bonding: Apply the product to one of the two parts to be assembled. Do not apply any load immediately after assembly. Curing time depends on the thickness.

1.2 CURING

BOSTIK 936 starts curing as soon as the product comes into contact with atmospheric humidity. After 3-5 minutes of exposure to the air, it is no longer possible to rework the product.

TYPICAL PERFORMANCE DATA (approx.)

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Formation Time*</td>
<td>4 minutes</td>
</tr>
<tr>
<td>Curing Time on 2mm Film Thickness</td>
<td>6 minutes</td>
</tr>
<tr>
<td>Cured Thickness after 24 hours</td>
<td>4.5 mm</td>
</tr>
</tbody>
</table>

* Temperature 23°C, Relative Humidity 50%.
(Curing can be accelerated by dry heat up to 150°C)

2. CURED PRODUCT & THERMAL PROPERTIES

PRODUCT CHARACTERISTICS

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific Gravity @ 25°C</td>
<td>1.06</td>
</tr>
<tr>
<td>Shore A Hardness</td>
<td>Approx. 33</td>
</tr>
<tr>
<td>100% Modulus MPa</td>
<td>0.75</td>
</tr>
<tr>
<td>Tensile Strength MPa</td>
<td>3.3</td>
</tr>
<tr>
<td>Elongation at Break %</td>
<td>500%</td>
</tr>
<tr>
<td>Tear Strength kN/m</td>
<td>11</td>
</tr>
<tr>
<td>Lower Temp limit for use – Brittle Point, °C (Measure by DSC Analysis)</td>
<td>Approx. -60°C</td>
</tr>
<tr>
<td>Upper Temp limit for use – Continuous operating temperature, °C (On a 2mm thick film, 1000h)</td>
<td>Approx. 275°C</td>
</tr>
<tr>
<td>Maximum Peak Temp recommended in use</td>
<td>72 hr ......... +300°C</td>
</tr>
<tr>
<td>(On a 2mm thick film)</td>
<td>15 hr ....... +320°C</td>
</tr>
<tr>
<td>NOTE: These values are not absolute limits but the range within which initial mechanical properties are not reduced by more than 50%.</td>
<td></td>
</tr>
<tr>
<td>Weight loss (1000 hr at 275°C)</td>
<td>20%</td>
</tr>
<tr>
<td>Thermal Conductivity</td>
<td>Approx. 0.25 W/m.K</td>
</tr>
<tr>
<td>@ 30°C</td>
<td>Approx. 0.22 W/m.K</td>
</tr>
</tbody>
</table>

2.1 ADHESION

2.1.1 Curing for 14 days at room temperature
- Primerless adhesion on:
  - Glass, enamel, ceramics, epoxy paint, polyester.
  - In conditions other than humid heat: on metal and polyester

2.1.2 Curing for 14 days at room temperature +72hr at 250°C

Shear Strength (MPa) 1.7
(AG3 aluminium test specimen, 1mm thick-gasket, NMRPS 748)
Type of failure 90% Cohesive

2.1.3 Curing for 14 days at room temperature +72hr at 60°C and 95% relative humidity

Shear Strength (MPa) 1.6
(AG3 aluminium test pieces, 1mm thick-gasket, NMRPS 748)
Type of failure 20% cohesive
2.2 RESISTANCE TO CHEMICALS
Tests carried out on 2mm thick films, cured for 7 days at room temperature. Resistance to oils after 70hr of immersion in oil at 150°C (Standards ISO R 1817–ASTM D471–MRPS S25)

<table>
<thead>
<tr>
<th>Type of Oil</th>
<th>Without Oil</th>
<th>15 W 40</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume Swelling (%)</td>
<td>0</td>
<td>21.3</td>
</tr>
<tr>
<td>Shore A Hardness</td>
<td>33</td>
<td>14.1</td>
</tr>
<tr>
<td>100% Modulus (MPa)</td>
<td>0.75</td>
<td>0.39</td>
</tr>
<tr>
<td>Tensile Strength (MPa)</td>
<td>3.3</td>
<td>1.65</td>
</tr>
<tr>
<td>Elongation (%)</td>
<td>500</td>
<td>590</td>
</tr>
</tbody>
</table>

2.3 DIELECTRIC PROPERTIES
- Dielectric Strength (kV/mm) ........ 23.3 (Standards NF C 26225, ASTM D 419, CEI 243)
- Dielectric Constant at 1MHz ........ 2.4 (Standards NF C 26230, ASTM D 150, CEI 250)
- Power Factor at 1 MHz ........ 2.6 x 10^-3 (Standards NF C 26250, ASTM D 150, CEI 250)
- Dielectric Resistivity, Ω 7.3 x 10^-15 (Standards NF C 26215, ASTM D 257, CEI 93)

STORAGE & SHELF LIFE
Store under cover, in a cool, dry place away from direct sunlight. Ideal storage temperature is not more than 25°C and relative humidity below 50%. Prolonged storage at high temperatures may affect shelf life and ultimate performance. Shelf life is up to 12 months when stored in original, unopened containers under the above conditions.

HEALTH & SAFETY
Please refer to the Safety Data Sheet (SDS) which is available online at www.bostik.com.au

For emergency information contact the Poisons Information Centre, phone 131 126 or the Emergency Response Service, phone 1800 033 111.

BOSTIK HOTLINE
Smart help 1800 898 551