Anabond 666T Max

Product Description

**Technology**  | **Silicone**
---|---
**Chemical type**  | **Oxime silicone**
**Appearance**  | **Thixotropic paste**
**Colour**  | **Clear**
**Components**  | **One component – requires no mixing**
**Cure**  | **Room temperature vulcanizing (RTV)**
**Application**  | **Bonding /Sealing**

Anabond 666T Max gasket sealant is a single component, non-slumping, low odour, low volatile silicone adhesive/sealant. It is designed to provide reliable “formed-in-place” gaskets for mechanical assemblies where high temperatures are experienced. The material cures on exposure to moisture in the air to form a tough, flexible, silicone rubber gasket. The product resists aging, weathering and thermal cycling without hardening, shrinking or cracking. It has good adhesion to substrates like aluminium, mild steel, glass, ceramics, corks and many plastics.

This is a universal gasket maker and it meets every sealing need in automobile engine, timing covers, oil sump applications, valve covers, rocker covers, water pumps, end seals, intake manifolds and rear axle housings. Also used as a sealant and adhesive for assembly and repair of industrial furnaces, ovens, boilers, exhaust stacks, high temperature ducting, bonding of sensitive electronic components and sub assemblies.

**Typical Properties of uncured material**

<table>
<thead>
<tr>
<th>Property</th>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specific gravity at 30 ± 2°C</td>
<td>ATM*-R004 (JIS* K6820)</td>
<td>1.02 -1.06</td>
</tr>
<tr>
<td>Flow, sag or slump at 30 ± 2°C</td>
<td>ATM-R016 (ASTM* C639)</td>
<td>Non sag</td>
</tr>
<tr>
<td>Extrusion rate for 20g at 30 ± 2°C, orifice 2.6, pressure 3.0 kg/cm², ATM-R047 (BS* 5889)</td>
<td>seconds</td>
<td>10 - 20</td>
</tr>
<tr>
<td>Pressure resistance at 30±2°C, ATM-R034 (JIS K6820)</td>
<td>kg/cm²</td>
<td>≥ 100</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Refer MSDS</td>
<td></td>
</tr>
</tbody>
</table>

**Curing performance**

The product cures on exposure to moisture in the air, typically developing a skin within minutes, becoming tack free within minutes to hours. After skin formation, cure continues inward from the surface. Optimum physical properties are reached after curing for 7 days at 30±2°C, 55±5% RH.

The rate of surface/depth cure depends on the relative humidity and temperature of the environment, thickness of the adhesive and the area under the joint. Curing time is extended at lower humidity levels.

Curing tested at 30 ± 2°C, 55 ± 5% RH

<table>
<thead>
<tr>
<th>Property</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Skin forming time – Surface cure, ATM-R017</td>
<td>minutes</td>
<td>3 - 8</td>
</tr>
<tr>
<td>Depth cure, ATM-R015.</td>
<td>mm/day</td>
<td>≥ 3.0</td>
</tr>
</tbody>
</table>

**Operating parameters**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application temperature</td>
<td>°C</td>
<td>10 to 40</td>
</tr>
<tr>
<td>In service temperature</td>
<td>°C</td>
<td>-50 to +230</td>
</tr>
<tr>
<td>Short exposure</td>
<td>°C</td>
<td>250</td>
</tr>
</tbody>
</table>

**Typical properties of cured material**

Cured for 7 days at 30 ± 2°C, 55±5% RH

**Physical Properties**

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<tr>
<th>Property</th>
<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength, ATM-R020 (ASTM D412)</td>
<td>kg/cm²</td>
<td>10 - 20</td>
</tr>
<tr>
<td>Elongation, ATM-R020 (ASTM D412)</td>
<td>%</td>
<td>≥ 300</td>
</tr>
<tr>
<td>Durometer Hardness, ATM-R019 (ASTM D2240)</td>
<td>Shore A</td>
<td>25 - 35</td>
</tr>
</tbody>
</table>

**Electrical Properties**

<table>
<thead>
<tr>
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<th>Specification</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dielectric strength, ATM R119 (ASTM D149)</td>
<td>kV/mm</td>
<td>≥ 18</td>
</tr>
</tbody>
</table>

**General Information**

This product is not recommended for use in pure oxygen and/or oxygen rich systems and should not be selected as a sealant for chlorine or other strong oxidizing materials.

**Handling**

Before handling, read product safety data sheets (MSDS) and container labels for safe use.

*ATM – Anabond Test Method, JIS – Japanese Industrial standard, ASTM – American Society for testing and materials, BS – British Standard

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Directions for use

Substrate preparation

Surfaces to be adhered or sealed should be free of dirt, oil and other contaminants. For best performance clean the surface with a solvent such as isopropyl alcohol, acetone or methyl ethyl ketone or with coarse lint free cloth.

A surface primer is recommended for hard to bond surfaces, such as some plastics. Apply a thin coat of primer after cleaning the surface with solvent, and allow drying for 5 to 10 minutes at room temperature.

Note that the adhesive may not show adhesion to polyethylene, polypropylene, polyacetal or Teflon.

Method of application

Adhesive/sealant can be applied directly from its collapsible tube or extruded from its cartridge.

A plastic nozzle is supplied which can be cut to the desired orifice and shape to facilitate application.

Apply a continuous bead of adhesive/sealant to the prepared surface in a uniform thickness. If spreading is required, use enough pressure to spread the adhesive/sealant and displace any trapped air.

The adhesive/sealant bead size to be specified is a function of anticipated gap size for the part and the flange width. Consult Anabond representative for equipment supplier and design recommendations.

Dispensing

The product can be dispensed using a manual dispensing gun, Pneumatic dispensing gun or customized dispensers. While using pneumatic dispensers, the product should be dispensed using 1 or 2 bar pressure.

For information on appropriate dispensing equipment, please contact Anabond.

Working time

Moisture curing begins immediately after the product is exposed to the atmosphere, any tooling should be completed before the skin forms and to ensure integrity of seal between mating parts, parts to be assembled before the sealant skins over. Higher humidity will accelerate this cure time.

Excess material can be easily wiped away with non-polar solvents

Limitations

Do not use for applications where the product will be in constant contact with gasoline, synthetic fuels or solvents.

Does not use in totally confined applications as sealant must have exposure to moisture from atmosphere to cure.

Storage

The optimal storage condition is 8°C to 30°C. Storage below or more than the temperature specified, has impact on the product properties.

Material removed from containers may be contaminated during use. Do not refill the product to the container.

Sealant cures by moisture. Keep the container tightly closed when not in use. A plug of cured material may form in the tip of tube or cartridge, which can be easily removed and will not affect the remaining contents.

If additional information is required, please contact our local customer service representative.

Shelf life

When stored at or below 30°C, in the original unopened containers, this product has a shelf life of 12 months from the date of manufacture.

Packing

Adhesive/sealant is available in 10, 15, 25 and 100 grams collapsible aluminum tubes.

Conversions

\[ (^\circ C \times 1.8) + 32 = ^\circ F \]

\[ kV/mm \times 25.4 = V/mil \]

\[ kg/cm^2 = 102 \times N/mm^2 \]

\[ mm / 25.4 = inches \]

\[ mPa.s = cP \]

\[ MPa \times 145 = psi \]

\[ \mu m / 25.4 = mil \]

\[ N \times 0.225 = lb \]

\[ N/mm \times 5.71 = lb/in \]

\[ N/mm^2 \times 145 = psi \]

\[ N\cdot m \times 8.851 = lb\cdot in \]

\[ N\cdot m \times 0.142 = oz\cdot in \]

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In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered.

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