



# Addisil\* 8101

## Addisil\* 8101

### Description

**Addisil 8101** silicone adhesive is a one-component heat curable silicone adhesive sealant which will bond to many substrates without a primer and which will cure rapidly at elevated temperatures. This product has a very long working time at room temperature and will not cure completely until exposed to elevated temperatures.

**Addisil 8101** is a grey thixotropic material

### Key Features and Benefits

- One component product - no mixing required
- Room temperature storage
- Very fast cure at elevated temperature (in a range of 110 °C to 230 °C)
- Primerless adhesion to many types of substrates (e.g. PBT, PA, phenolic resins, copper, nickel, aluminum, stainless steel, brass, ceramic and glass)
- No formation of cure by-products; low linear shrinkage
- Non-corrosive to metals and sensitive substrates
- Excellent dielectric properties
- Outstanding performance over a wide temperature range
- Service temperature -50 °C to 250 °C

### Typical Physical Properties

Uncured Properties	Addisil 8101
Colour	grey
Viscosity, Pa·s, 10 s <sup>-1</sup>	160 -650
Vertical Flow, @ 30 min., mm	< 2
Density, g/cm <sup>3</sup>	1.09
<b>Cured Properties (cured 10 min. at 175°C)</b>	
Hardness, Shore A	43
Elongation, %	580
Tensile Strength, MPa	9.2
Dielectric Strength, DIN 53481, kV/mm(2mm thickness)	27.4
Dielectric Constant, DIN 53483 (50 Hz)(1mm thickness)	2.94
Dissipation Factor, DIN 53483 (50 Hz), tan δ (1mm thickness)	0.0018
Volume Resistivity, DIN 53481 Ω·m (1mm thickness)	2.1 * 10 <sup>11</sup>

### Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute a permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

## Product Safety, Handling and Storage

### CAUTION

**Addisil 8101** silicone adhesive can generate flammable hydrogen gas upon contact with acidic, basic, or oxidizing materials. Such contact should be avoided.

Customers should review the latest Material Safety Data Sheet (MSDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, and any special storage conditions required for safety. MSDS are available at [www.momentive.com](http://www.momentive.com) or, upon request, from any Momentive Performance Materials (MPM) representative. **For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center.** Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

## Processing Recommendations

### Compatibility

**Addisil 8101** silicone adhesive will cure in contact with most clean, dry surfaces. However, certain materials, such as butyl and chlorinated rubber, sulfur-containing materials, amines, and certain metal soap cured RTV silicone rubber compounds can cause cure inhibition. Cure inhibition is characterized by a gummy appearance of Addisil 8101 silicone adhesive at the interface between the adhesive and the substrate to be bonded. It is recommended that a sample patch test be performed with Addisil 8101 silicone adhesive to determine substrate compatibility.

### Surface Preparation

The adhesive performance of any polymer system is highly dependent upon proper surface preparation. In order to maximize the adhesion of Addisil 8101 silicone adhesive and minimize the potential for cure inhibition, all parts should be as clean and dry as possible prior to the application of the adhesive.

### Bonding

**Addisil 8101** silicone adhesives offer outstanding adhesion characteristics to a wide variety of different substrates without the need of a primer. For difficult-to-bond-to substrates, or where more aggressive chemical adhesion is desired, using SS4155 silicone primer, available from Momentive performance materials, may enhance the adhesion. To apply the primer, thoroughly clean the surface and let dry. Then apply a uniform film (0.01-0.02 mm) of SS4155 silicone primer and allow the primer to air-dry for one hour or more.

### Curing

**Addisil 8101** silicone adhesive requires the use of elevated temperatures in order to achieve full cure.



The actual cure time is affected by such things as cross-sectional thickness of the RTV silicone adhesive, heat capacity of the overall assembly and efficiency and type of oven used (i.e. convection, infrared).

### Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.

### Availability

Addisil 8101 is available 20 kg pails and 310 ml cartridges.

### Shelf Life & Storage

The warranted shelf life from the material will be indicated by the “use before date” on the associated documents with a minimum of 4 months when stored in the unopened containers at 27 °C or less.

From automotive to healthcare, from electronics to construction, products from Momentive Performance Materials Inc. are practically everywhere you look. We are a global leader in silicones and advanced materials with a 70+ year heritage of innovation and being first to market – with performance applications that improve everyday life. By knowing our customers’ needs and creating custom technology platforms for them, we provide science based solutions to help customers increase performance, solve product development issues and engineer better manufacturing processes.

**Contact Information** For product prices, availability, or order placement, contact our customer service by visiting [momentive.com/ContactSilicones](http://momentive.com/ContactSilicones).

For literature and technical assistance, visit our website at: [www.momentive.com](http://www.momentive.com)

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