

# LOCTITE® MS 9650

September 2025

## Product description

LOCTITE® MS 9650 provides the following product characteristics:

<b>Technology</b>	Silane-modified polymer
<b>Product type</b>	Adhesive
<b>Components</b>	One-component
<b>Cure</b>	Cure at ambient temperature (above 5 °C) or cure at elevated temperatures
<b>Application</b>	Assembly
<b>Appearance</b>	Black
<b>Consistency</b>	Pasty, Thixotropic
<b>Odor</b>	Characteristic

LOCTITE® MS 9650 is a gun-grade, one component adhesive / sealant based on silane modified polymer, which cures by reaction with moisture to a soft elastic product. The skin formation and curing times are dependent on humidity and temperature, and the curing time also depends on joint depth. By increasing the temperature and moisture these times can be reduced; low temperature as well as low moisture retard the process.

LOCTITE® MS 9650 is free of solvents, isocyanates, silicones and PVC. The adhesive / sealant also demonstrates good UV and weather resistance and can therefore be used for interior and exterior applications.

LOCTITE® MS 9650 demonstrates the strength necessary for elastic bonding.

## Application areas

LOCTITE® MS 9650 can be used for elastic bonding and sealing on many materials such as glass, metal, painted surfaces and plastics. It is used where the cure speed of a conventional one-component adhesive is too slow.

## Technical data

(Typical test results)

Density, g/cm <sup>3</sup>	~1.4
Sag resistance*, (DIN profile 15mm)	no sagging
Skin formation time, min	2 to 5*
Cure rate, mm/24h	~3*
Shore A hardness (ISO 868)	~60*
Tensile strength, (ISO 37, speed 500 mm/min), Mpa	~3*
Elongation at break, (ISO 37, speed 500 mm/min) , %	>180*
Tensile shear strength, (DIN EN 1465), MPa	1.7 to 3.0*
Cross head speed, mm/min	10
Substrates, Al	99.5
In service temperature range, °C	-40 to 90
Short exposure (up to 1h), °C	120
Application temperature, °C	15 to 40
* DIN 50014 standard climate	23°C, 50% relative air humidity

## Direction for use

### Preliminary statement

This product is currently in developmental status. The data given in this laboratory data sheet may differ from the end product after validation of the data during scale up phase. Prior to application it is necessary to read the **Safety Data Sheet** for information about precautionary measures and safety recommendations. Also, for chemical products exempt from compulsory labeling, the relevant precautions should always be observed.

### Pretreatment

The substrates must be clean, dry, oil- and grease free. Depending on the surface it can be necessary to roughen the surface or to use a primer/adhesion promoter to provide best adhesion. Corona or Plasma treatment improve the adhesion to many different materials. When manufacturing plastics, external release agents are often used; these agents must be accurately removed prior to starting bonding or sealing. Due to the different compositions of paints, especially powder paints and the large number of different substrates, application trials before use are necessary. For cleaning, Cleaner + Diluent TEROSON® VR 10, VR 30, VR 40 or TEROSON® SB 450 from the Henkel portfolio are suitable. When bonding and sealing PMMA, e.g. Plexiglas®, and polycarbonate, e.g. Makrolon® or Lexan®, under tension, stress corrosion cracking may occur. Application trials before use are necessary. There is no adhesion to polyethylene, polypropylene and PTFE (e.g. Teflon®). Substrates not mentioned above should be subject to trials.

**General remarks**

Due to the rapid curing after the expiry of the pot life, the mixing equipment must be cleaned in time. Thereby, it must be remembered that the pot life depends on the temperature: a higher temperature accelerates the chemical reaction, whereas a reduction in temperature will retard it. The actual processing time depends on the technical conditions, the mixing equipment and the temperature. For component A itself, the atmospheric humidity is a decisive factor.

**Application**

1. Application from 310 mL cartridges is made with the TEROSON® Hand or Air Pressure Pistols.
2. For best application results, the use of a volume controlled dispenser is necessary. The selection of a suitable dosing system is depending on specific production process and requires preliminary dispensing tests.
3. All the equipment including hoses and pipes must be protected from atmospheric humidity.
4. In the case of compressed air application a pressure of 2 to 5 bar is required.
5. Low material temperatures of the sealant will lead to an increase of viscosity, resulting in a lower extrusion rate. This can be avoided by bringing the sealant up to room temperature prior to application.
6. LOCTITE® MS 9650 can also be applied from hobbocks with high pressure pumps with follower plates.

**Curing**

LOCTITE® MS 9650 can be cured between 5 °C and 40 °C. Higher temperatures reduce the curing time, but at the same time a reduction of the processing time (pot life, open time) must be considered.

During setting, care must be taken that sufficient pressure is exerted on the mating parts to hold them in place, i.e. to ensure that the parts are kept in contact with the adhesive over their entire bonding surface.

**Cleaning**

For cleaning application equipment contaminated with uncured LOCTITE® MS 9650 we recommend the use of cleaners + diluents TEROSON® VR 10, VR 30, VR 40.

**Storage**

Frost-sensitive	no
Recommended storage temperature, °C	10 to 20
Shelf-life (in unopened original packaging), months	12

**Conversions**

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$   
 $\text{kV/mm} \times 25.4 = \text{V/mil}$   
 $\text{mm} / 25.4 = \text{inches}$   
 $\mu\text{m} / 25.4 = \text{mil}$   
 $\text{N} \times 0.225 = \text{lb}$   
 $\text{N/mm} \times 5.71 = \text{lb/in}$   
 $\text{N/mm}^2 \times 145 = \text{psi}$   
 $\text{MPa} \times 145 = \text{psi}$   
 $\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$   
 $\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$   
 $\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$   
 $\text{mPa}\cdot\text{s} = \text{cP}$

**Disclaimer**

The information provided in this Technical data sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. The product can have a variety of different applications as well as differing application and working conditions in your environment that are beyond our control. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product. Any liability in respect of the information in the Technical data sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.

**In case products are delivered by Henkel Belgium NV, Henkel Electronic Materials NV, Henkel Nederland BV, Henkel Technologies France SAS and Henkel France SA please additionally note the following:**

In case Henkel would be nevertheless held liable, on whatever legal ground, Henkel's liability will in no event exceed the amount of the concerned delivery.

**In case products are delivered by Henkel Colombiana, S.A.S. the following disclaimer is applicable:**

The information provided in this Technical Data Sheet (TDS) including the recommendations for use and application of the product are based on our knowledge and experience of the product as at the date of this TDS. Henkel is, therefore, not liable for the suitability of our product for the production processes and conditions in respect of which you use them, as well as the intended applications and results. We strongly recommend that you carry out your own prior trials to confirm such suitability of our product. Any liability in respect of the information in the Technical Data Sheet or any other written or oral recommendation(s) regarding the concerned product is excluded, except if otherwise explicitly agreed and except in relation to death or personal injury caused by our negligence and any liability under any applicable mandatory product liability law.



**In case products are delivered by Henkel Corporation, or Henkel Canada Corporation, the following disclaimer is applicable:**

The data contained herein are furnished for information only and are believed to be reliable. We cannot assume responsibility for the results obtained by others over whose methods we have no control. It is the user's responsibility to determine suitability for the user's purpose of any production methods mentioned herein and to adopt such precautions as may be advisable for the protection of property and of persons against any hazards that may be involved in the handling and use thereof. In light of the foregoing, **Henkel Corporation specifically disclaims all warranties expressed or implied, including warranties of merchantability or fitness for a particular purpose, arising from sale or use of Henkel Corporation's products. Henkel Corporation specifically disclaims any liability for consequential or incidental damages of any kind, including lost profits.** The discussion herein of various processes or compositions is not to be interpreted as representation that they are free from domination of patents owned by others or as a license under any Henkel Corporation patents that may cover such processes or compositions. We recommend that each prospective user test his proposed application before repetitive use, using this data as a guide. This product may be covered by one or more United States or foreign patents or patent applications.

#### **Trademark usage**

Except as otherwise noted, all trademarks in this document are trademarks of Henkel Corporation in the U.S. and elsewhere. ® denotes a trademark registered in the U.S. Patent and Trademark Office.

Reference 2

---

**For the most direct access to local sales and technical support visit: <https://www.henkel-adhesives.com>**