

# LOCTITE LM 100

June 2015

## PRODUCT DESCRIPTION

LOCTITE LM 100 provides the following product characteristics:

<b>Technology</b>	Solder paste
<b>Application</b>	Pb-free soldering

LOCTITE LM 100 no clean flux is designed for use with low temperature Pb-free solder alloys. LOCTITE LM 100 is formulated to provide excellent dispensability, printability and solderability through various reflow profiles.

## FEATURES AND BENEFITS

- Stencil and screen print capability.
- Wide reflow process window.
- Colorless residues.
- Good resistance to humidity.
- Good solderability to Copper and Matt nickel.

## TYPICAL PROPERTIES

Based on (J-STD-005) Type 2 powder.

### Solder Paste Typical Properties

Alloys	Bi58
Metal Loading (Weight %)	90
Composition	Sn42Bi58
Alloy melting range, °C	138
Powder Particle Size, µm	38 to 53
Powder Size Coding	AAS
Malcom Viscosity, 10 rpm, Poise	1,350
Thixotropic Index	0.5

### Solder Powder:

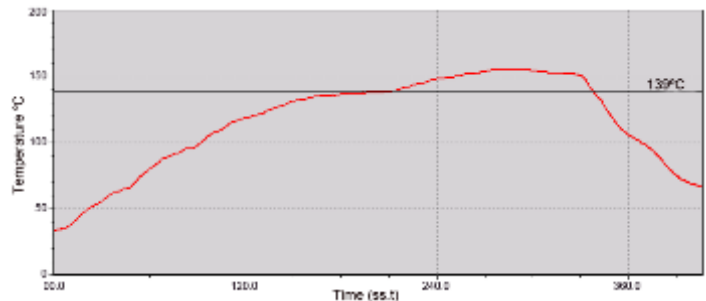
Careful control of the atomization process for production of solder powders for LOCTITE LM 100 solder paste ensures that the solder powder produced meets the requirements of J-STD-006 for powder shape, size distribution and alloy composition. Other alloys may be available on request.

## DIRECTIONS FOR USE

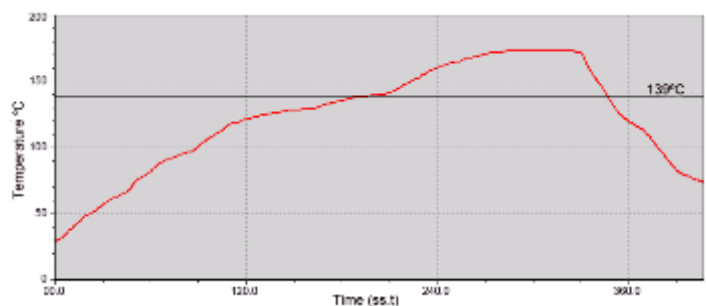
### Reflow:

LOCTITE LM 100 solder paste is formulated to reflow in air although a wider process window can be achieved if reflow is carried out under nitrogen. There is no single reflow profile which is suitable for all processes and applications, but the following graphs show profile examples that have given good results in practice.

Profile 1:



Profile 2:



## RELIABILITY PROPERTIES

Test	Specification	Results
IPC Corrosion	J-STD-004	Pass
Chlorides & Bromides	J-STD-004	Pass
Flux solids content	J-STD-004	50% by weight
Typical flux acid value	J-STD-004	110 mg KOH/g
Flux halide content	J-STD-004	<0.005%

## STORAGE AND SHELF LIFE

### Shelf Life:

Provided LOCTITE LM 100 is stored tightly sealed in the original container at 0 to 10°C, a minimum shelf life of 183 days can be expected.

### Cleaning:

LOCTITE LM 100 solder paste residues can be removed using commonly available cleaning solvents for electronic assembly such as Isopropanol and Multicore MCF800.

## DATA RANGES

The data contained herein may be reported as a typical value and/or a range. Values are based on actual test data and are verified on a periodic basis.

**GENERAL INFORMATION**

For safe handling information on this product, consult the Material Safety Data Sheet (MSDS).

**Not for Product Specifications**

The technical information contained herein is intended for reference only. Please contact Henkel Technologies Technical Service for assistance and recommendations on specifications for this product.

**Conversions**

$(^{\circ}\text{C} \times 1.8) + 32 = ^{\circ}\text{F}$

$\text{kV/mm} \times 25.4 = \text{V/mil}$

$\text{mm} / 25.4 = \text{inches}$

$\mu\text{m} / 25.4 = \text{mil}$

$\text{N} \times 0.225 = \text{lb}$

$\text{N/mm} \times 5.71 = \text{lb/in}$

$\text{N/mm}^2 \times 145 = \text{psi}$

$\text{MPa} \times 145 = \text{psi}$

$\text{N}\cdot\text{m} \times 8.851 = \text{lb}\cdot\text{in}$

$\text{N}\cdot\text{m} \times 0.738 = \text{lb}\cdot\text{ft}$

$\text{N}\cdot\text{mm} \times 0.142 = \text{oz}\cdot\text{in}$

$\text{mPa}\cdot\text{s} = \text{cP}$

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Reference **N/A**