Updated: 21/06/2024	**TECHNICAL DATA SHEET**	
Ref. : Solder Gel	SMT Solder Gel Type **MOB 39**	
Created: 20/06/96	**Specially formulated for Ball Grid Array (BGA) solderable components**	

GENERAL CHARACTERISTICS:

Solder Gel **MOB 39** has been specially developed in the laboratories of MBO in relation to Solder Cream (Chemical and Alloys) for Surface Mount Technology (SMT).

Solder Gel **MOB 39** is primarily intended for micro-electronics circuits using BGA components pre-loaded with solder pads.

Solder Gel **MOB 39** due to its viscosity, is an ideal flux for other applications:
(a) As an alternative to Solder Paste where there is already sufficient alloy on the surface.
(b) For repair / rework where the component carries solder alloy on its connecting surface

Benefits achieved from using **MOB 39** with BGA components over the use of cream are:

Usage:

- Good resolution to solder particles
- Avoids bridging of tracks
- Compatibility with existing circuits
- Very minimal residue

Economy:

- Requires approximately one fifth of material and application time
- Costs less than Solder Cream

Environmental benefit:

- Improves contact with lead
- Waste does not contain lead

Solder Gel **MOB 39** has a base of high purity rosin with the equivalent activation of RMA (Rosin Mildly Active) to clear oxidants from the surface of the circuit in preparation for good fusion. The completed soldered connection will be the same as produced with Solder Cream which had been applied by screen or stencil deposition.

Solder Gel **MOB 39** is designed for "no-clean" technology. After fusion, the very low level of residue remaining may be left without risk of corrosion.

METAUX BLANCS OUVRES 21806 CHEVIGNY-SAINT-SAUVEUR Cedex FRANCE
Tel : (+)33 3 80 46 12 58
Fax :(+)33 3 80 46 66 59

Updated: 21/06/2024	**TECHNICAL DATA SHEET**	
Ref. : Solder Gel	SMT Solder Gel Type **MOB 39**	
Created: 20/06/96	**Specially formulated for Ball Grid Array (BGA) solderable components**	

PHYSIOCHEMICAL CHARACTERISTICS:

Appearance : Gelatinous
Colour : Transparent Honey
Density : 1.01
Chlorine rate Cl : Without Chlorine
Acid number : 120 ± 5 mgKOH / g
Non volatile Content : 70%

RELIABILITY & J-STD COMPLIANCE:

MOB 39 solder meets J-STD requirements as a ROL0 flux:

Test	J-STD-004
Copper mirror	Pass
Silver chromate	Pass
Fluoride Spot	Pass
Copper Corrosion	Pass
S.I.R. test	Pass

Ionic contamination:
Solution of test: 75/25 solution
(Isopropylic alcohol/ deionised water) Board IPC-B-24

Limit*	→ **2.15** (µg NACL equivalent /cm²)
Result	→ **< 1** (µg NACL equivalent /cm²)

*(IPC- J-STD-001C § 8.3.6 IPC-TM-650, 2.3.25C)

BONO test (SAGEM / SCHNEIDER):

No corrosion after 15 days under 20V and 100Vdc 85°C/85%RH

SIR Test (SURFACE INSULATION RESISTANCE) :

Method	Conditions	Requirement	Results
IPC TM 650 - §2.6.3.3	85°C/85% RH	> 100 M Ω	>2.2 10^{10} Ω
Without cleaning	168 hours		

METAUX BLANCS OUVRES 21806 CHEVIGNY-SAINT-SAUVEUR Cedex FRANCE
Tel : (+)33 3 80 46 12 58
Fax :(+)33 3 80 46 66 59

Updated: 21/06/2024	**TECHNICAL DATA SHEET**	
Ref. : Solder Gel	SMT Solder Gel Type **MOB 39**	
Created: 20/06/96	**Specially formulated for Ball Grid Array (BGA) solderable components**	

APPLICATION :

Spread a thin film of **MOB 39** onto the circuit in the component placement area or onto the base of the component. A thickness of 30 – 40 microns is ideal.

- **MOB 39** remains active for a minimum of 8 hours.
- **MOB 39** can be left on the circuit 6 hours before placement of the component.
- Refusion should be performed within 6 hours of placement of the component.

Solder Gel **MOB 39** is very useful in the area of repair and rework to prepare the surfaces of circuits for the replacement of components. After de-soldering, apply MOB39 to the PCB, spread thinly, position the new component, reheat locally.

Avoid using excess **MOB 39**.

After fusion the process leaves no visible or reactive residues, this eliminates the need for cleaning and the risk of corrosion.

MISCELLANEOUS:

Health and Safety	: Use in a well ventilated area away from any source of ignition.
Packaging	: 5 ml, 10ml manual syringes, 100g Jars, other packaging on request.
Storage / Usable life	: Store in original containers at 5°C-10°C for approx. 12 months (3 months between 20 and 25°C).

ADDITIONAL INFORMATION:

Our manufacturing processes have been subjected to FMECA analysis (equivalent of AMDEC in Europe).

METAUX BLANCS OUVRES 21806 CHEVIGNY-SAINT-SAUVEUR Cedex FRANCE
Tel : (+)33 3 80 46 12 58
Fax :(+)33 3 80 46 66 59