

Standard Product Specification

Product	ECO SOLDER BAR	Specification No.	Ed.	Page
Name	M705	F2-5-L30ES-014	6	1 / 5

1. Scope

This specifications covers the lead-free bar solder, ECO SOLDER BAR M705, used for wiring connection and so on, of electrical and electronic parts.

2. Standard

2. 1 Chemical composition (Test method : STM-9-1)

Composition and impurities are prescribed as following tables.

Composition (mass%)		
A g	C u	S n
3.0 ± 0.1	0.50 ± 0.05	Balance

Impurities							
less than mass%		mass% or less					
P b	C d	S b	B i	Z n	F e	A l	A s
0.05 ※	0.002	0.10	0.10	0.001	0.02	0.001	0.03

※ However, it shall be provisional application

2. 2 Melting temperature range and specific gravity (Reference value)

Melting temperature range (°C)	Specific gravity
Approx. 217 ~ 220	Approx. 7.4

Date of Establish / Revision	Approval	
Revised on September, 07, 2004	Q.A. Dept.	Manufacturing Dept.
	I.Nozawa <i>I. Nozawa</i>	S.Hashimoto <i>S. Hashimoto</i>

Product	ECO SOLDER BAR M705	Specification No.	Ed.	Page
Name		F2-5-L30ES-014	6	2 / 5

2. 3 Appearance (Test Method : STM-1)

- ① The surface shall be smooth and glossy uniformly. Extremely poor gloss, and adhesion of foreign matters and dirt, shall not be found.
- ② Significant scratches, cracks, tears, and surface oxidization, shall not be found.

2. 4 Dimension (mm), and unit mass

	Continuous casting	Extruding	Manual casting
Thickness	Approx. 7		Approx. 11
Width	Approx. 20		Approx. 18
Length	Approx. 450		Approx. 350
Unit mass (g)	500 ± 20		Approx. 400

3. Inspection Report

A inspection shall be carried out on each production lot about following item ①, and the Inspection Report in which result is mentioned shall be attached at the time of delivery, when requested by your company.

- ① Chemical composition

Product	ECO SOLDER BAR	Specification No.	Ed.	Page
Name		M705	F2-5-L30ES-014	6

4 . Packaging / Marking

4 . 1 Packaging

Individual packaging : Nil
Packaging : Carton box
Net mass : 20 kg

4 . 2 Marking

4 . 2 . 1 Imprinting

S M I C E C O M 7 0 5

4 . 2 . 2 Carton box

The following items shall be indicated on the carton with label or printing.

- | | |
|----------------------|-------------------------------|
| ① Product name | ⑦ Validity |
| ② Composition | ⑧ Patent No. |
| ③ Size | ⑨ Product code of our company |
| ④ Lot No. | ⑩ Manufacturer's name |
| ⑤ Manufacturing date | ⑪ Manufacturing country |
| ⑥ Net mass | ⑫ Precaution |

5 . Guarantee period

The guarantee period of this product shall be four years from the manufacturing date.

Product	ECO SOLDER BAR	Specification No.	Ed.	Page
Name		M705	F2-5-L30ES-014	6

6 . Precautions for safety

Stated in the separate documents, 「Instruction Manual」 and 「Material Safety Data Sheet」 .

7 . Regulations

Stated in the separate documents, 「Instruction Manual」 and 「Material Safety Data Sheet」 .

8 . Precautions in handling, storing, and disposing

Stated in the separate documents, 「Instruction Manual」 and 「Material Safety Data Sheet」 .

9 . Others

- ① We cannot guarantee the result of use nonconforming to or unspecified in this specification.
- ② You are requested not to divulge to any other company or publicize any matter related to this specification.

1 0 . Test Methods

STM-1 Appearance

Appearance shall be confirmed by visual observation as to the content specified by the applicable standard.

Product	ECO SOLDER BAR	Specification No.	Ed.	Page
Name		M705	F2-5-L30ES-014	6

STM-2 Mass

Weighing shall be conducted using a weighing apparatus having a minimum graduation less than 5/10000th of the maximum weighing capacity.

STM-3 Dimensions

Measurements shall be taken using calipers stipulated in JIS B 7507, micrometer stipulated in JIS B 7502, or, any other suitable measuring apparatus.

STM-9-1 Chemical Composition

According to 「JIS K 0116 General rules for atomic emission spectrometry」 or to 「JIS Z 3910 Methods for Chemical Analysis of Solder」 .

However, blended silver (Ag), according to 「JIS Z 3910 Methods for Chemical Analysis of Solder」 .