

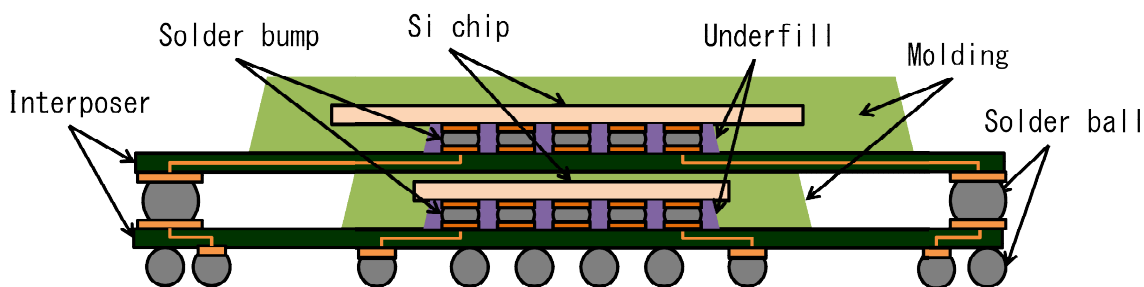
α particle analysis service for semiconductor packaging material

April 1, 2016

Mitsubishi Materials Corporation

By utilizing the knowledge and skill obtained from handling α particle related materials, we will start an α particle analysis evaluation service for solder materials and other materials used in semiconductor packaging.

Subject Products: Solder ball/bump, substrate, underfill, solder resist. (contact for other requests)



Construction of PoP packaging (Flip chip type)

In recent years, due to the evolution of packaging such as 2.5D and 3D packaging, the reduction of α particle is becoming a necessity among not only the solder ball below the chip, but also among the solder resist and underfill. By taking advantage of the experience gained through the development of low α solder material “MUL α S series”, we can provide customer support regarding low α control with our new α particle analysis service for semiconductor packaging material.

Content of Analysis

- Analysis equipment: Gas flow proportional counter
- Analysis method: Apply JEDEC STANDARD JESD221
- Analysis sample: Various types of semiconductor wafers, metal plate, plating film, solder paste, various types of powder (excluding volatile material), resin system sheet, etc.
- Required time: Roughly 2 weeks (contact for more detail)
- Price: Contact for more detail

If you have any questions, please contact the sales department.

Requirements for Sample

<Wafer, plating circuit board, sheet, etc (please consult with us)>

- Sample thickness: $\sim 5\text{mm}$
- Area: $1,000\text{cm}^2$ (we will spread on a $28 \times 36\text{cm}$ tray)
⇒ It is possible for the area to be less than $1,000\text{cm}^2$, but first please contact if that is the case.
- Weight: $\sim 1,500\text{g}$

<Various powders>

- Weight: $500 \sim 1,000\text{g}$
⇒ we will spread on a $28 \times 36\text{cm}$ tray (area: $1,000\text{cm}^2$), thickness roughly $1 \sim 2\text{mm}$

Please include the SDS with the sample.

Contact To

North America	<p>Mitsubishi Materials U.S.A Corporation Electronic Materials Div. 1314B N. Plum Grove Road Schaumburg, IL 60173 U.S.A. Phone +1-847-252-6364 Fax +1-847-519-1736</p>
China	<p>MMC SHANGHAI CO., LTD. Room 12B01, Winners Building 678, Gubei Road, SHANGHAI, 200336, China Phone +86-(0)21-6289-0022 Fax +86-(0)21-6279-1180</p>
Korea	<p>MITSUBISHI MATERIALS TRADING CORPORATION SOUTH KOREA - SEOUL BRANCH #1812 Samsung Cheil Bldg. 309, Teheran-ro, Gangnam-gu, Seoul, 135-751, South Korea Phone +82-2-3474-2331 Fax +82-2-527-2834</p>
Taiwan	<p>EUCARLA INDUSTRIAL CO., LTD. 19F-3, No. 56 Min-Sheng 1st Rd., Kaohsiung, 800 Taiwan Phone +886-7-2270999 Fax +886-7-2270998</p>
	<p>MMC ELECTRONIC MATERIALS TAIWAN CO., LTD. TAIPEI OFFICE 8F-1, No.35 Kan-Ku Street, Taipei 103, TAIWAN R.O.C. Phone +886(2)2558-2895 Fax +886(2)2556-0035</p>
Singapore	<p>MITSUBISHI MATERIALS TRADING CORPORATION SINGAPORE - SINGAPORE BRANCH 10 Anson Road, #32-09 International Plaza, Singapore 079903. Phone +65-6221-7233 Fax +65-6325-4220</p>
EU	<p>DKSH France SA 1475 Quai du Rhône, BP 266, 01702 Miribel Cedex, France Phone +33 4 7855 7856 Fax +33 4 7855 7887</p>

You can also contact us from the following website.

【Mitsubishi Materials Corporation Advanced Materials DiV., Electric Materials & Components company】

<http://www.mmc.co.jp/adv/ele/en/products/assembly/index.html>