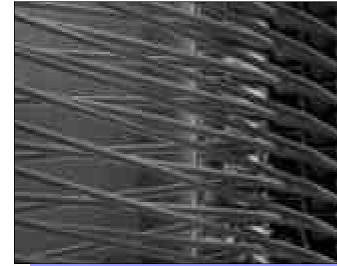
TANAKA KIKINZOKU GROUP

Microbonds

X-Wire™ Technology Insulated Bonding Wire

X-Wire™ Free Air Ball

X-Wire™ Stitch Bond



X-Wire™ Crossing Wires

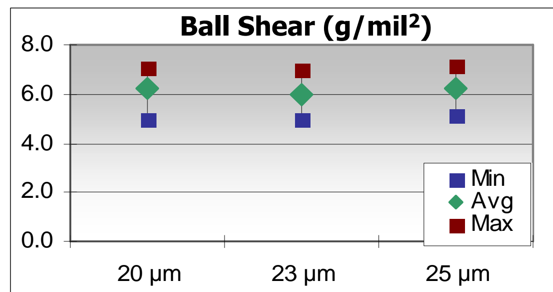
Target Applications

- Stack Die
- Multi-Row ICs
- Yield Improvement
- Engineering Changes
- Die Shrink
- Substrate Reduction

Performance Data

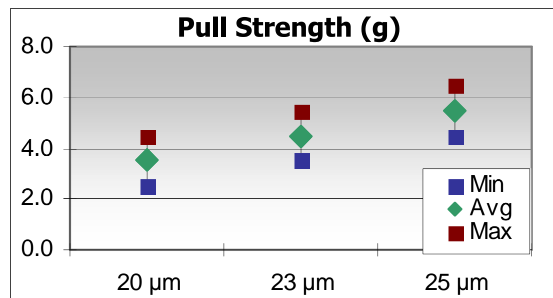
X-Wire™ Ball Bond

- Good Ball Shear Strength
- No Capillary Build Up
- Small FAB Capability



X-Wire™ Stitch Bond

- Good Pull Strength
- Laminate & Leadframe
- Reverse Stitch Bonding

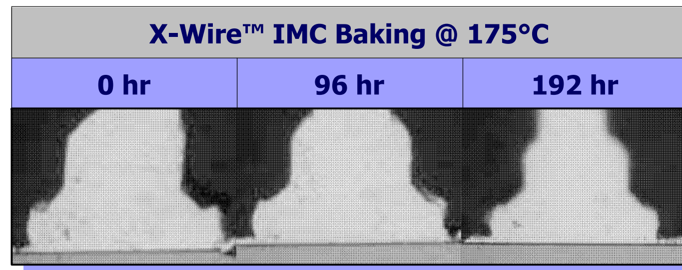


© 2006. All Rights Reserved.

X-Wire™ IMC

- Good IMC Coverage
- Passed 192 hr @ 175°C
- Comparable to Bare Wire

X-Wire™ IMC Baking @ 175°C		
0 hr	96 hr	192 hr



X-Wire™ Reliability

- MSL 3 – Pre-Condition
- Biased HAST **(HAST/B):**
  - 130°C, 85 RH, 4 V, 100 hr
- High Temp. Storage **(HTS)**
  - 150°C, 1500 hr
- Thermal Cycle **(T/C)**
  - -55 to 125°C, 1000 cycle

X-Wire™ Reliability Test Summary

BGA 503	HAST/B	HTS	T/C
Lot 1	45/45 pass	45/45 pass	45/45 pass
Lot 2	45/45 pass	45/45 pass	45/45 pass
Lot 3	45/45 pass	45/45 pass	45/45 pass

Additional Features

- Excellent Coating Adhesion
- High Temperature & Lead-Free Compatible

X-Wire™ 2.0 Head Start Kit

Wire Diameters

- 20 µm, 23 µm & 25 µm
- 200 m Sample Spools (2)
- Bare Wire from Tanaka

Wire Bonder Kit

- ASM Eagle & K&S Maxum Platform
- Capillaries

Documentation on CD-ROM

- Wire Bonder Setup Instructions
- Process Parameters & Wire Bond Design Rules

To Order Please Contact

Tanaka Asia

Mr. Frank Tanaka

K-TANAKA@ml.tanaka.co.jp
T: + 81-3-6311-5588

Mr. Takeshi Inaba

T-INABA@ml.tanaka.co.jp
T: + 81-3-6311-5588

Microbonds Inc.

Mr. William (Bud) Crockett

bcrockett@microbonds.com
T: +1 408-504-4971

© 2006. All Rights Reserved.