Atotech’s new low-cost super concentrate

BondFilm™ MS 500 joins the BondFilm™ Family

Berlin, February 2013

Since the first BondFilm™ product launched in 1998, this product family has been a key contributor to success for Atotech. To continue to stand out from the masses, Atotech’s Surface Treatment Technology team recently launched a new product within the BondFilm™ family: The BondFilm™ MS 500.

BondFilm™ MS 500

“BondFilm™ MS 500 is a super-concentrate that employs new additives on top of the standard organic system,” explains Dr. Rami Haidar, Global Product Manager Surface Treatment Technology (STT), at Atotech Deutschland GmbH in Berlin, Germany. “This, in return, leads to a significant reduction in running costs, especially with large production volumes.”

The new product clearly differentiates itself from similar products due to:

- Enhanced adhesion at ‘standard etch depths’
- Compatibility with a wider range of materials (High and Low Tg, Halogen-free) as well as with standard BondFilm™ equipment
- Competitive process costs

Alpha Site Tests

Alpha Site tests have shown a very good performance. The new BondFilm™ MS 500 offers, for example, very good adhesion along the copper loading curve in terms of initial peel strength.
Adding BondFilm™ MS 500 to the initial peel strength also offers great results with other test parameters, which are well-known from the BondFilm™ family. Amongst these are:

- Great thermal reliability
- Acid resistance above five minutes
- A broad copper loading window up to 28g/L

**Beta Site Tests**

In addition to the standard R&D lab and Alpha Site tests BondFilm™ MS 500 was also tested extensively during a Beta Site with one of Atotech’s customers in China.

Multiple samples at several etch depths and conditions were run at the Beta Site. All peel strength requirements demanded by the customer for the different etch depths and conditions were met and even surpassed.

Additionally several requirements in terms of thermal reliability for the prepared samples were defined. Extensive tests showed that these requirements could also be surpassed by BondFilm™ MS 500.

“All samples, at all required conditions, exceeded the customer’s requirements and expectations,” states Dr. Rami Haidar. “Additionally, all panels reached a very satisfactory and even surface roughness as well as cosmetic results.”

**Market Introduction**

Thanks to the outstanding test results at the Beta Site, Atotech’s customer in China has decided to start mass production with BondFilm™ MS 500.

BondFilm™ MS 500 is now being offered to customers worldwide.
About Atotech
With annual sales of €965 million, Atotech is one of the world's leading manufacturers of processes and equipment for the printed circuit board, IC-substrate and semiconductor industries (Electronics) as well as the decorative and functional surface finishing industries (General Metal Finishing). Committed to sustainability, Atotech develops technologies that minimize waste and reduce environmental impact. Atotech, a division of the Total Group, is headquartered in Berlin, Germany and employs about 4,000 people in over 40 countries. About a quarter of all staff works in one of the four locations in Germany: Berlin, Feucht, Neuruppin and Trebur.

BondFilm™ MS500: Roughness Performance