# TechniStrip® NF52

## Photoresist Stripper

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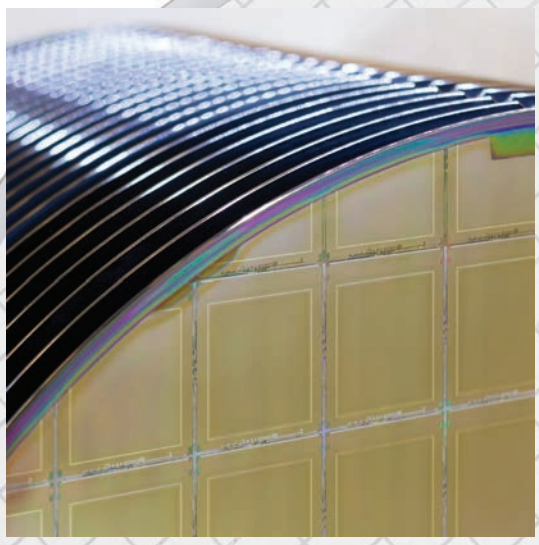
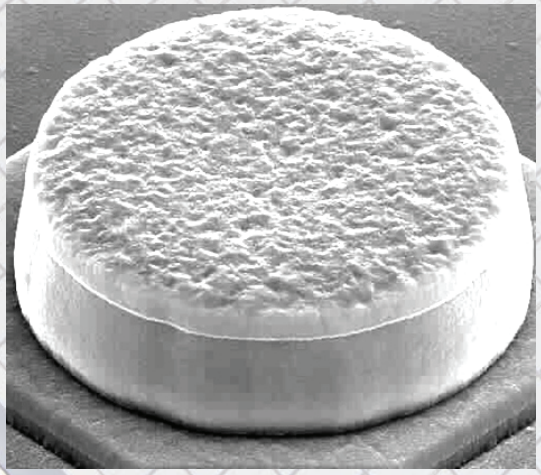
## High Dissolution, High Metal Compatibility NMP-Free Photoresist Stripper

Advanced Packaging for semiconductors continues to bring new challenges to material suppliers. In addition to requiring high performance, materials are also expected to be environmentally friendly. Alternatives to harmful legacy chemistries have had to be implemented without sacrificing results.

Historically chemistries such as NMP and hydroxylamine have been used to dissolve liquid and dryfilm resist. Through extensive research and development Technic has developed a series of products under the TechniStrip® name that offer high level performance and are free of NMP and hydroxylamine

TechniStrip® NF52 is formulated to provide powerful stripping performance on difficult to remove dryfilm photoresist and is the product of choice for many leading semiconductor manufacturers.





### Features

- Dissolution on most commercial dryfilm photoresist
- Dissolution of commercial spin-on photoresist (N & P Tones)
- Extremely low etch rate on Cu, Ni, Au and other materials
- Compatible with fragile III/V materials and organic substrates
- High stripping rate of > 10 µm/minute
- Long bath life
- Proven performance on both batch (spray and immersion) and single-wafer toolsets

### Benefits

- Reduced cost of operation achieved through a highly efficient process and longer bath life
- Reduced defects by providing full dissolution on most dryfilm and liquid photoresist
- High metal compatibility provides wider processing window and ease of operation
- CMR free (carcinogenic, mutagenic or toxic for reproduction) formulation reduces safety risk to operators

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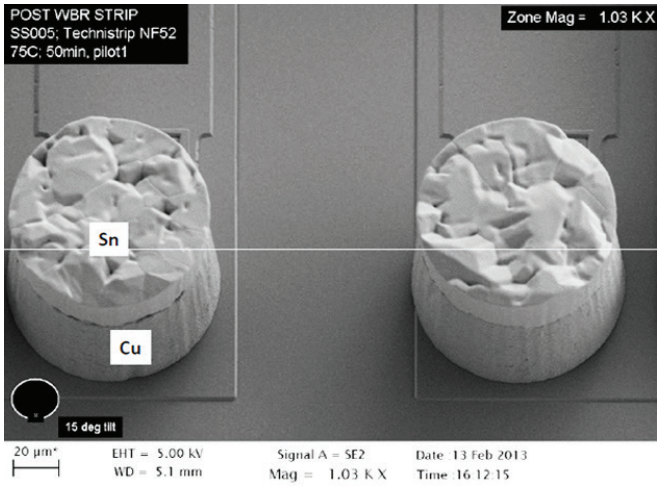
## DMSO/TMAH Photoresist Stripper

### High Metal Compatibility

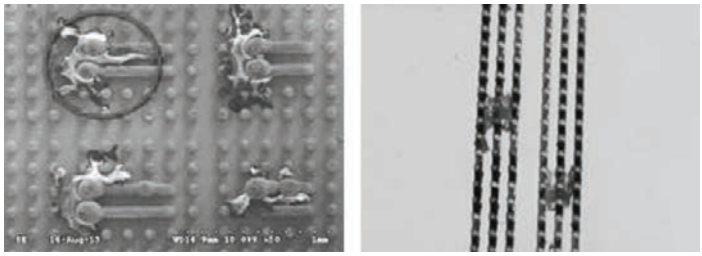



Results of TechniStrip® NF52 on WBR 2100 Resist in batch spray solvent tool showing good stripability of the dryfilm without attacking the base metals.

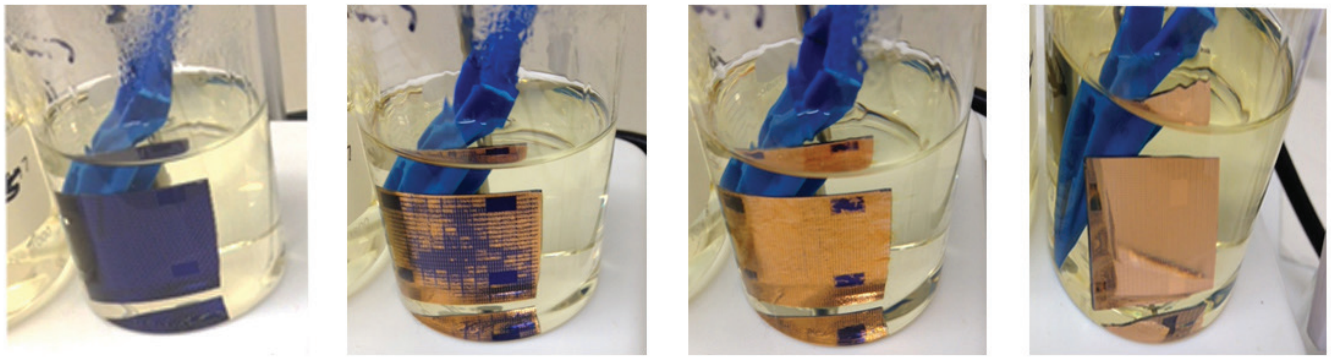
| Etch Rate @ 70°C | |
|---|---|
| Substrate | Static Immersion (Å/min) |
| Al (0.5% Cu) | <2 |
| $Al_2O_3$, AlN | <2 |
| Cu | <2 |
| Ni, W | <1 |
| Ta/TaN | <1 |
| Ti/TiN/TiW | <1 |
| Sn, Ag | <1 |
| Pd, Au | <1 |
| Si, TEOS, $SiO_2$ | <1 |
| ZnO, ITO | <1 |
| GaAs, GaN | <2 |

### Full Dissolution on Dryfilm Photoresist

With decreasing feature sizes and denser patterning of advanced packaging, photoresists need to be completely dissolved. Any residuals that are not fully dissolved can become trapped between tight pitched features and create defects in subsequent processes.



Examples of remaining photoresist residues in fine features



Shown here, a progression of dryfilm photoresist removal from a semiconductor wafer using TechniStrip® NF52. The process completely dissolves the resist from the substrate leaving no residual particals in the wafer or suspended in the solution.

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