



Dupont Dry Film Resists

Dry Film Resists for Microsystems Technology and Wafer Level Packaging

micro resist technology GmbH is a distributor of DuPont Dry Film Resists for applications in micro systems technology and wafer level packaging.

Key benefits of Dry Film Resists

Unlike liquid resists for similar high film thicknesses the application of dry film resists results in the same film thickness over the whole substrate, independent on its size. No edge bead is formed. i. e. the substrate utilisation is better than with liquid resists. Furthermore, reliability in film composition is improved. The application of the resist film to the substrates by lamination is easier than spin-coating and softbake of liquid resists. In addition, hardly any coating waste is generated. With dry film resists it is possible to protect holes from metallisation or etching by tenting.

DuPont Dry Film Resists distributed by *micro resist technology GmbH* comprise:

- MX5000 series e.g. for via formation, plating and RDL etching, used in Bosch process
- WBR2000 series e.g. for solder bumping (resist patterns thermally stable at 310 °C) by electroplating or stencil printing and for metal pillar manufacture

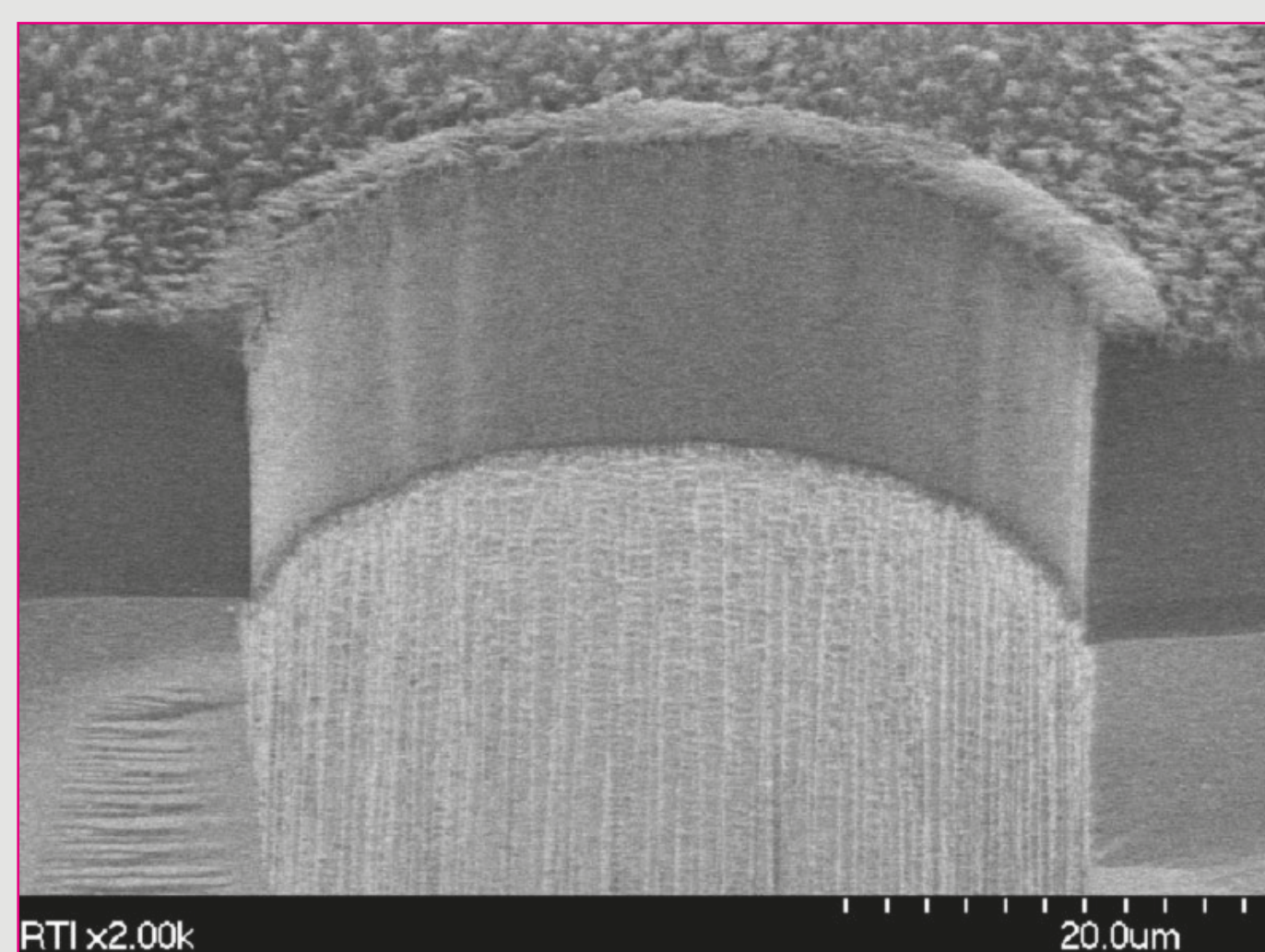
Product overview

Resist	Application	Film thickness [µm]	Permanent/Removable	Developer
MX5000 Series	Multipurpose, e.g. Via (TSV) formation (DRIE), plating and protection, RDL etching (light green colour; dark blue after exposure)	15 - 50	Removable	Spray development, 0.75% K ₂ CO ₃ (mr-D 4000/ 75)
WBR2000 Series	Creation of solder bumps by electroplating or stencil printing of solder-paste and reflow, copper-pillar plating (light green colour; dark blue after exposure)	50, 75, 100, 120	Removable	Spray development, 1% K ₂ CO ₃ (mr-D 4000/ 100)

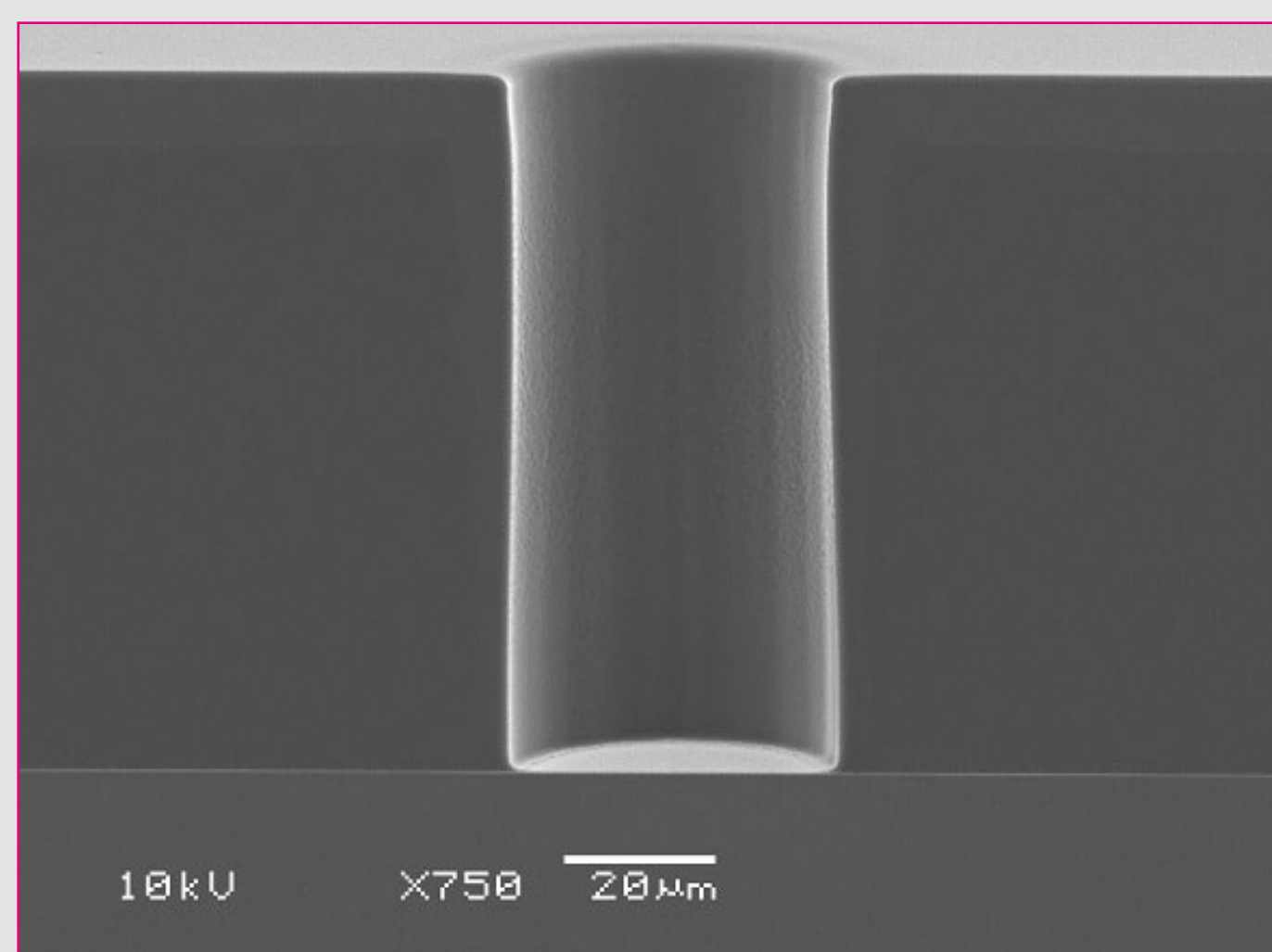
Standard size: 9.5" x 100 ft.



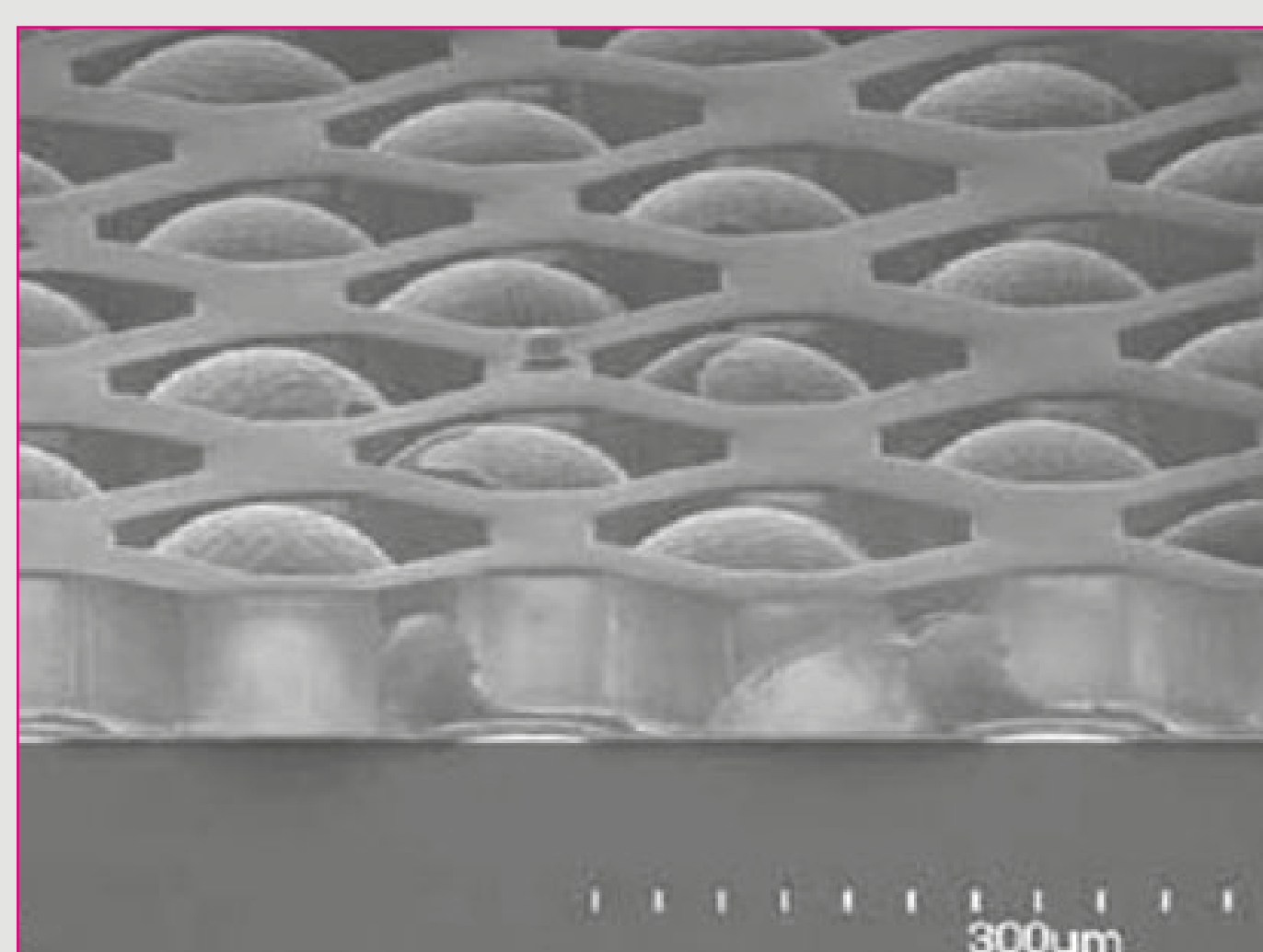
MX5000, Tenting over via-hole



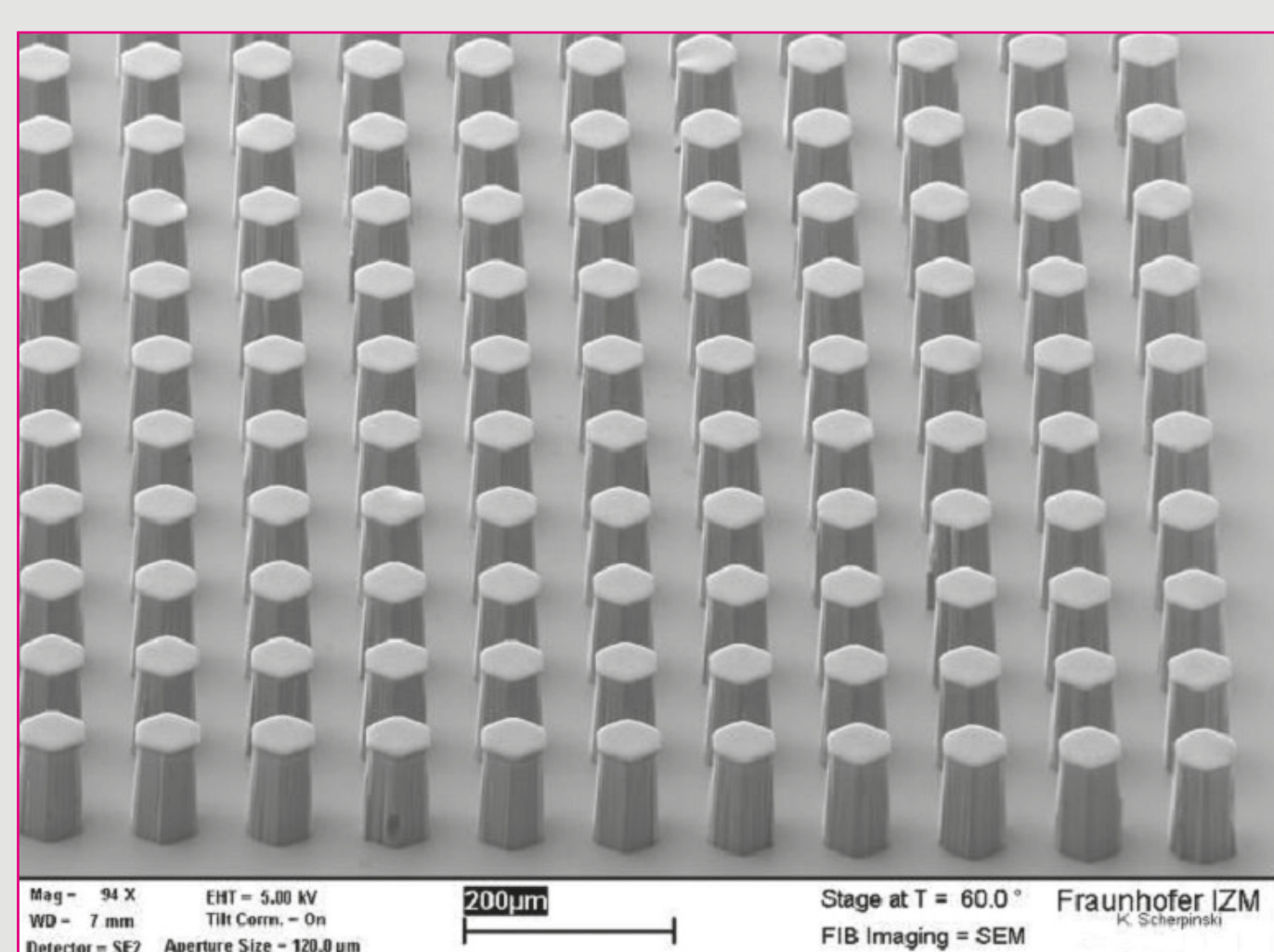
MX5000, etch mask for DRIE



WBR2000, mask aligner broadband exposure



WBR2000, after stencil printing and reflow of the printed metal paste at 310 °C



50 µm Cu posts after electroplating in and removal of WBR2050