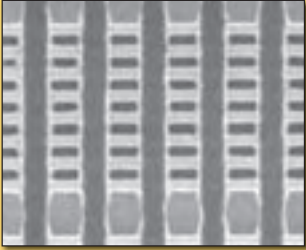


Robust ArF Implant Photoresists

- Excellent adhesion performance on high-k/metal gate stacks
- Excellent footing control over topography
- Allows extension of design rules below 120 nm

EPIC™ 2570 Photoresist for Thin Implant over Topography



125 nm Dense Trenches over 50 nm Dense Poly Lines

Resist FT = 180 nm
Poly height = 80nm
Stack = Si/poly/resist

EPIC 2560 Photoresist for Thick Implant on Oxide



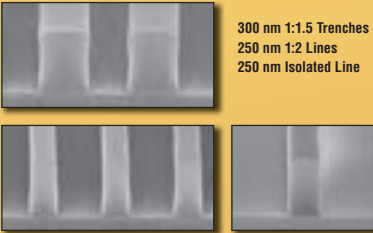
130 nm 1:8 Lines/Spaces at 330 nm FT, 200 nm Oxide

130 nm Isolated Line at 330 nm FT, 200 nm Oxide

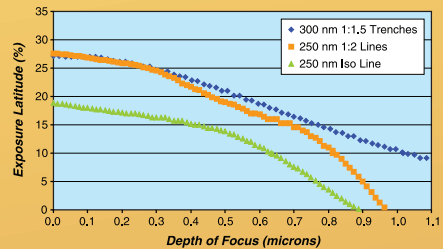


130 nm Isolated Trench at 330 nm FT, 200 nm Oxide

EPIC 1600 Photoresist for Thick Implant (5,500Å) Process Window on Silicon



300 nm 1:1.5 Trenches
250 nm 1:2 Lines
250 nm Isolated Line



Superb Profiles KrF Implant Photoresists

- KrF implant photoresists from ultra-thin to ultra-thick film thicknesses
- Excellent profile with wide process window and good adhesion
- High-volume manufacturing proven materials with low defectivity

Thin Implant

UV1610 Photoresist

- Low temperature processing for shallow implant applications
- Superb resolution for 45 nm and 32 nm



140 nm Trenches at 205 nm FT



140 nm Trenches at 240 nm FT

Well Implant

UV1408 Photoresist

- ESCAP Platform
- For well implant and consolidation applications



280 nm 1:1.5 Trenches at 1.3 μm FT



280 nm Isolated Trench at 1.3 μm FT

Implant for i-Line Backup

UV2400 Photoresist

- Excellent isolated trench capability
- Thickness range 0.5–1.8 μm
- Low-temperature processing
- Low iso-dense bias



400 nm 1:1 Trenches at 1.0 μm FT



400 nm Isolated Trench at 1.0 μm FT

Thick Implant

UV1412F Photoresist

- ESCAP for high softbake temperature processing
- 0.5–3.5 μm film thickness
- Low viscosity for ultra-thick implant applications like CMOS Image Sensor



700 nm 1:1 Trenches at 3.5 μm FT



700 nm Trench at 3.5 μm FT