Why Use EKC PCMP5510™?

- Industry proven in production at both Logic and Memory manufacturing sites:
  - Leading Logic fab for > 6 years (currently at 65nm)
  - Leading Flash Memory fab for > 5 years
- Provides very low cost of ownership through flexible dilution
- Capable of BTA removal from copper surfaces
- Reduces copper oxide \((\text{Cu}_{(x)}\text{O})\) thickness with high selectivity to Cu
- Effectively reduces surface particles/defects
- Significantly reduces surface trace metal contamination
- Eliminates copper dendrite formation
- Excellent compatibility on Cu, barrier, and low-k films
- Tunable to meet specific customer cleaning needs
- Compatible with advanced materials (advanced barrier and ULK films) allowing extendibility to advanced technology nodes
- High wafer throughput (not a limiting step in clustered tools)
- Environmentally sustainable solution
  - Reduces DI water consumption; Waste stream compatible components
Proven: Particle Removal
Slurry Removal Testing on Clustered Tool

BDIIx 2.5 Cleaning Comparison using Clustered Tool (AMAT Reflexion2 LK) with TiN Metal Hardmask Integration Scheme (TiN / BDIIx 2.5). Barrier Slurry: pH ~ 10 Silica

Normalized Total Defectivity

- SP2 > 0.1μ
- SP2 > 0.15μ

Effective Particle Removal
Lower Cost of Ownership Achieved Through Higher Dilution

Comparison of Undiluted Chemical Volumes used Per Wafer for IMEC POR vs. EKC PCMP5510™ BKM on AMAT Reflexion2 LK Integrated CMP Platform

Cost Savings through Flexible Dilution
PCMP5510™ Allows Tunable Process to Meet Specific Customer Cleaning Requirements

Tunability of PCMP5510™ Resulting in Optimized Cleaning for Specific Films

Tunable Performance