

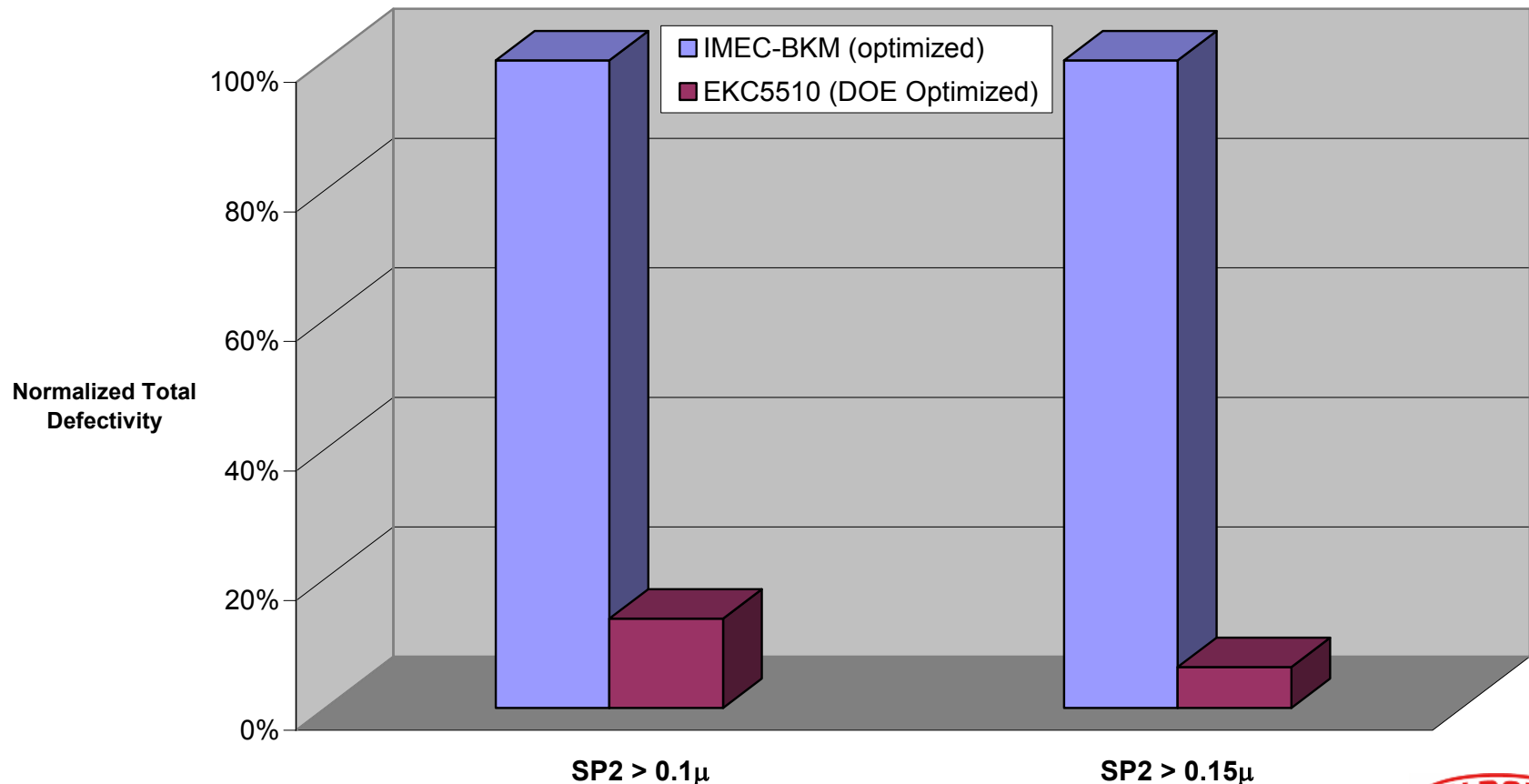
Why Use EKC PCMP5510™ ?

- **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 (Cu_(x)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

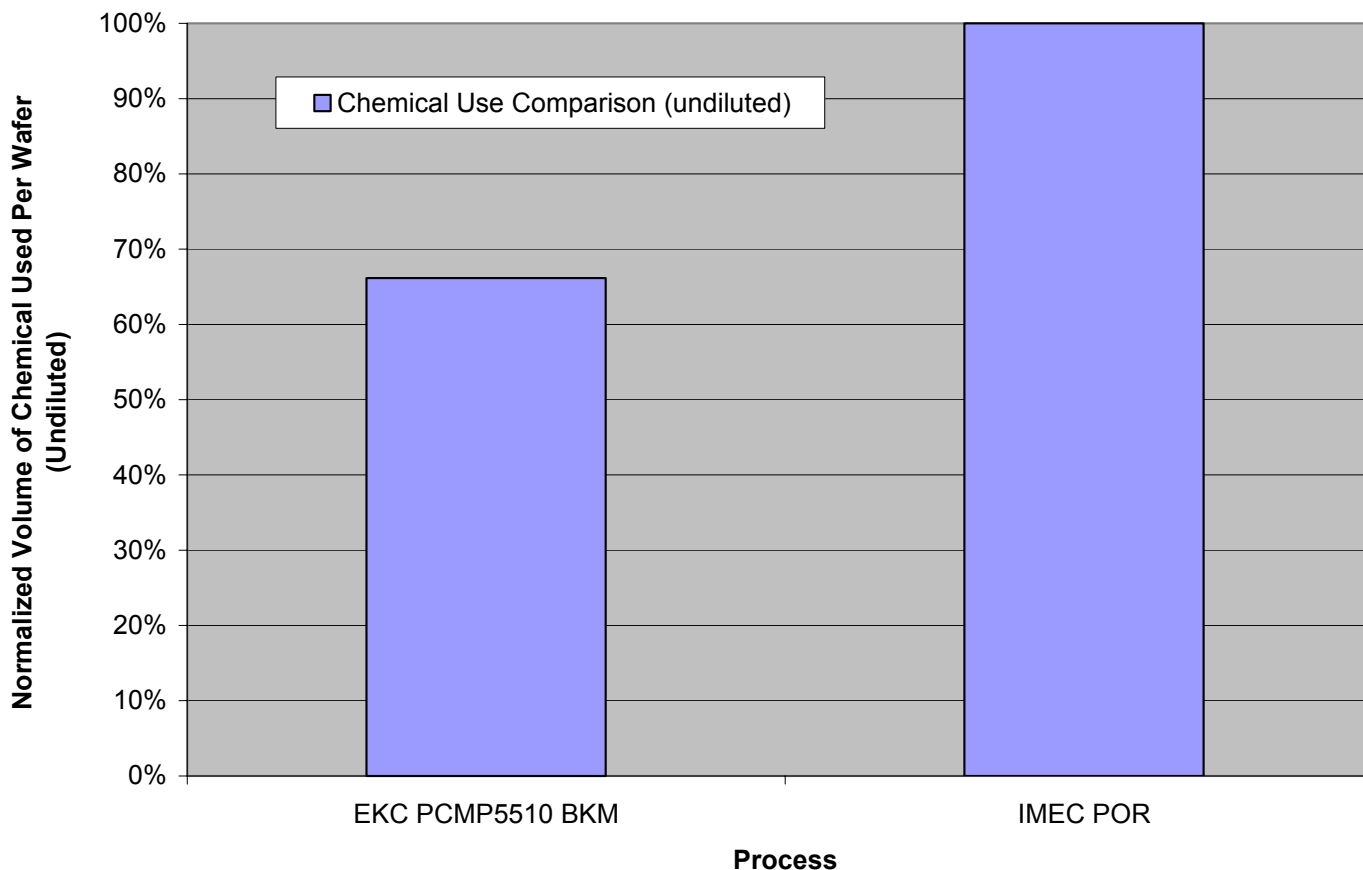


Effective Particle Removal



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

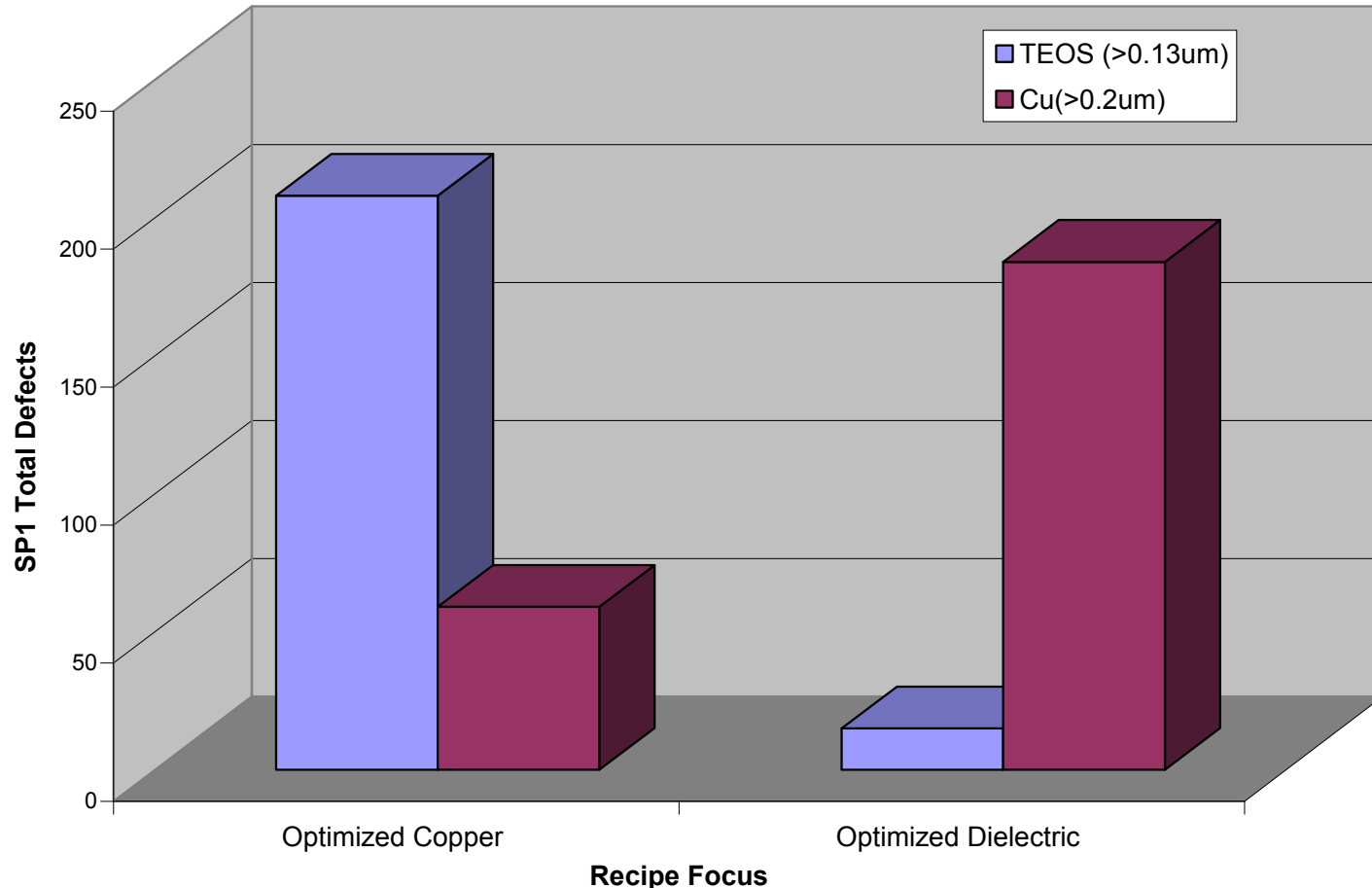


Cost Savings through Flexible Dilution



PCMP5510™ Allows Tunable Process to Meet Specific Customer Cleaning Requirements

Tunability of PCMP5510™ Resulting in Optimized Cleaning for Specific Films



Tunable Performance

