



PLANARGEM® CMP PAD CONDITIONERS

Micro-machined SiC substrate with conformal CVD diamond coating delivers long-life, highly uniform pad conditioning while minimizing substrate damage

Overview

As integrated circuit technology advances, chemical mechanical planarization (CMP) processes are becoming more demanding. Tighter process windows and more specialized process demands will benefit from more tunable and better performing pad conditioners. Planargem® CMP pad conditioners offer leading-edge, customer-tailored performance across all aspects of the CMP process. They ensure a consistent wafer removal rate, extend pad and conditioner life, and improve disc-to-disc uniformity.

The durable diamond coating provides consistent and uniform pad conditioning. It also eliminates substrate scratches and damage caused by lost diamonds from inferior brazed/sintered diamond matrix pads. The unique CVD diamond coating method and substrate technology allow for nearly infinite “tunability” of micro-machined surface features (feature size, shape, height and density) to match specific pad and process requirements.



Applications

- Semiconductor – CMP

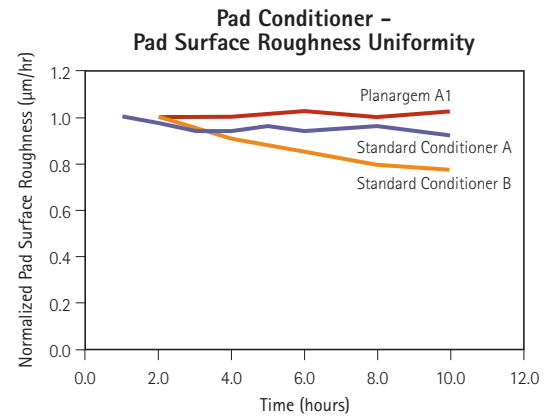
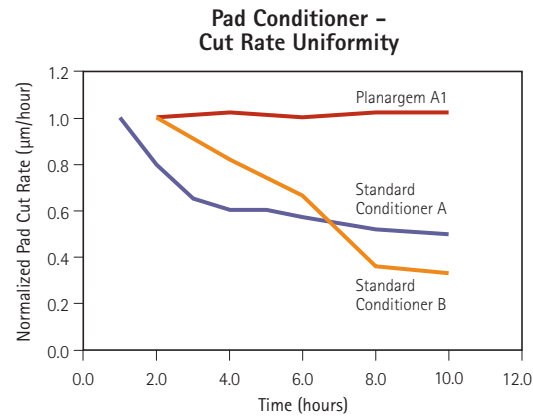
Features and Benefits

Features	Benefits
CVD diamond coating	Tunable coating roughness provides alignment with customer performance requirements
	Eliminates defectivity caused by lost or broken diamonds
	Reduced metal contamination
	Reduced cost of ownership due to consistent, repeatable and long-life conditioning
Micro-machined silicon carbide carrier	Tunable SiC features offer performance flexibility to match customer process
	Superior feature consistency offers conditioner life and uniformity improvement
	Precise texturing process provides full range of conditioner aggressiveness

Specifications

Materials:	"Cutting" surface	Proprietary CVD diamond coating
	Carrier	Silicon carbide
Feature size:	85 μm , 125 μm , 160 μm , 200 μm , 300 μm	
	Spoke or channel configuration	
Feature density:	0.25 per mm^2 to 15 per mm^2	
Feature depth:	15 μm , 20 μm , 35 μm , 70 μm , flexible	
Segment size:	Standard, flexible	
Segments per disc:	1, 4, 5, 6, 8 flexible	
Holder types:	Stainless, plastic, magnetic, snap-on, flat, flexible	

Performance Data



Ordering Information

Part Number	Conditioner Aggressiveness		
	Gentle	Moderate	Aggressive
PGMG110	■		
PGMA140		■	
PGMA260			■

For More Information

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