

Planarcore[®] PVA Brush with Polypropylene Core for Ebara[®] CMP Tools

Rapid changeout and high performance for the most critical post CMP clean applications

Planarcore[®] PVA brushes with polypropylene cores for Ebara[®] CMP tools are designed to deliver superior performance and wafer-to-wafer uniformity in post CMP wafer cleaning applications. The unique molded-through-the-core technology provides absolute adhesion of the PVA (polyvinyl alcohol) to the brush core, unlike standard PVA products that are merely friction fitted to the core. The dimensional stability and core flow equalization of disposable Planarcore PVA brushes also eliminate the uncertainty associated with stand-alone and pre-mounted PVA products. PVA slippage, expansion and loss of concentricity are no longer a concern with the superior performance of Planarcore PVA brushes from Entegris.

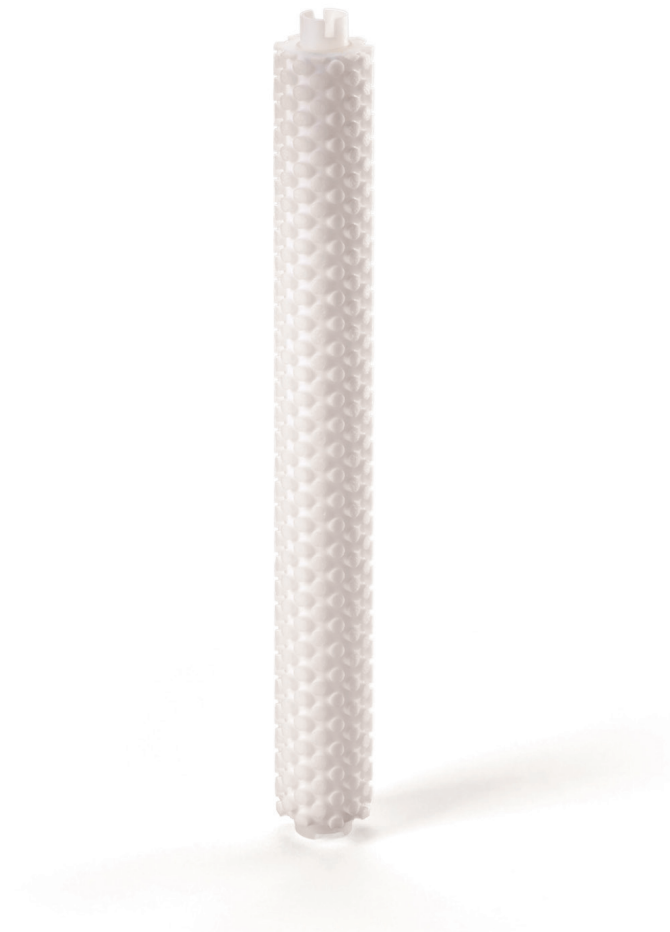
Reduces Downtime on Tool

Molded-through-the-core technology guarantees a perfect fit every time. No operator errors or inconsistencies to worry about. Gapping is quicker and easier, as the dimensional stability and concentricity from brush to brush do not waver. From first wafer to last wafer, the Planarcore brush and gap remain the same, ensuring process stability.

Efficient cleaning processes in Planarcore brush manufacturing reduce fab-based flush-up and brush break-in times. Quicker CMP tool startup benefits throughput.

Decreases Defectivity on Wafer

Reduced particle counts on wafer are the result of cleaner PVA, dimensional consistency and flow equalization, which combine to deliver the most consistent performance wafer-to-wafer in the industry.



FEATURES & BENEFITS

Molded-through-the-core construction	Allows rapid and consistent installation on tools, reducing system downtime
	Eliminates alignment and gapping problems, increasing system throughput
	PVA remains dimensionally stable due to the molded-through-the-core technology; will not lose concentricity during use
High-purity PVA	Molded-through-the-core construction allows for more efficient cleaning of PVA in manufacture
	Brush break-in and flush-up time is dramatically reduced
	Low extractables and reduced particle counts on wafers
Close-molded technology	The Planarcore brush design equilibrates flow through the brush, eliminating the risk of non-repeatable and non-predictable performance due to inconsistent flow rates through the length of the brush, as seen in standard designs

SPECIFICATIONS

Materials of construction	Core/mandrel	All-polypropylene construction	
	Brush	Polyvinyl alcohol (PVA)	
	Preservative	0.5% H ₂ O ₂ or NH ₄ OH	
Product cleanliness*	Fluoride	F ⁻	<0.50 ppm (parts-per-million)
	Chloride	Cl ⁻	<0.75 ppm
	Nitrate	NO ₃ ⁻	<0.50 ppm
	Phosphate	PO ₄ ³⁻	<0.50 ppm
	Sulfate	SO ₄ ²⁻	<0.50 ppm
	Lithium	Li ⁺	<0.10 ppm
	Sodium	Na ⁺	<0.50 ppm
	Potassium	K ⁺	<0.80 ppm
	Magnesium	Mg ²⁺	<0.20 ppm
	Calcium	Ca ²⁺	<0.50 ppm
Dimensions	Outside diameter**	39 mm ±1.0 mm	
	Concentricity**	<0.51 mm (0.02")	
PVA typical characteristics	30% compressive stress**	90 g/cm ²	
	Porosity***	87–91%	
	DI water absorption capacity	700–1100 wt %	
	Pore size	70–250 μm (via SEM)	

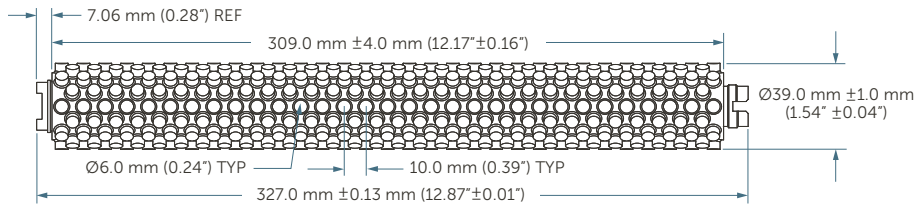
*Full Planarcore brush (including core) is submerged in 1 L of 18 MΩ DI water and squeezed to ensure good distribution of any potential contamination. Residual DI water is then extracted by ion chromatography.

**These parameters are specified on the Certificate of Analysis for each product.

***Typical porosity is reported for the nodule area.

DIMENSIONS

PVP1EF3R1 and PVP0EF3R1 Planarcore Ebara Brush



ORDERING INFORMATION

Part number	Description
PVP1EF3R1	Planarcore for Ebara F*Rex300 H ₂ O ₂ , 1/pk
PVP0EF3R1	Planarcore for Ebara F*Rex300 NH ₄ OH, 1/pk

FOR MORE INFORMATION

Please call your Regional Customer Service Center today to learn what Entegris can do for you. Visit entegris.com and select the Contact Us link to find the customer service center nearest you.

TERMS AND CONDITIONS OF SALE

All purchases are subject to Entegris' Terms and Conditions of Sale. To view and print this information, visit entegris.com and select the Terms & Conditions link in the footer.



Corporate Headquarters
129 Concord Road
Billerica, MA 01821
USA

Customer Service
Tel +1 952 556 4181
Fax +1 952 556 8022
Toll Free 800 394 4083

Entegris®, the Entegris Rings Design™, Pure Advantage™ and Planarcore® are trademarks of Entegris, Inc. Ebara® is a registered trademark of Ebara International Corporation.

©2001-2017 Entegris, Inc. | All rights reserved. | Printed in the USA | 4424-5640ENT-0817