

Advanced Cleaning Materials

Your Expert in Probe Card Cleaning

Probe Card Cleaning with Advanced Cleaning Materials

At Entegris, we are proud to lead the way in probe card cleaning innovation with our advanced cleaning materials. Our solutions feature advanced cleaning technology, ensuring the gentle and efficient removal of particles and residues from probe cards. This cutting-edge process restores the integrity of the card's contact points, leading to precise and reliable test results. Our latest Probe Polish[®] materials made with our new high-performance polymer formulation, deliver superior performance at higher temperatures with improved resistance to fatigue and mechanical degradation when compared to legacy and competing products.

PRODUCT PORTFOLIO

Our product portfolio includes a wide array of advanced cleaning products that enable our customers to reduce defectivity, maximize yield, improve tool uptime, and reduce production costs.

For decades, Entegris' original 1st generation Probe Polish has been the industry standard for probe card maintenance. However, as testing environments evolve with higher temperatures, traditional cleaning materials have faced limitations, including increased debris generation. Our High-Performance Probe Polish[®] line is a solution to this challenge, providing reduced debris generation and exceptional reliability to support an evolving and improving market.

Like legacy formulations, our high-performance polymer efficiently removes embedded and bonded debris from shaped probe tips and collects loose debris generated during probing. Abrasives in the polymer aid the removal of pin debris without altering the probe material or contact area.

Legacy Probe Polish

High-Performance (HP) Probe Polish®



Legacy material shows extensive damage after probing with debris present on the pin. The High-Performance material has <10% of the damage and less debris present on the pin. Conditions (10k touchdowns, 150 um overtravel, room temperature)

HIGH-PERFORMANCE PROBE POLISH

Our High-Performance Probe Polish is a direct upgrade from the legacy isotropic (flat) Probe Polish material. With optimized material properties, this advanced formulation delivers:

- Unmatched durability at higher temperatures
- Most consistent cleaning and stable contact resistance in the market
- Extended media lifetime and improved cost of ownership



Higher strain at break and toughness mean the polymer is more durable and can withstand repeated pin insertions. Contact resistance will be stable for more cleaning cycles.

WFL4.0 AND PMD4.0

Our newest line of advanced cleaning materials, WFL4.0 and PMD4.0 feature an advanced polymer that surpasses the durability of earlier Probe Polish formulations.

- Endures high forces and temperatures during probe conditioning
- Reduces mechanical wear on the cleaning film
- Minimizes film damage preventing debris transfer to pin
- Stabilizes contact resistance
- Increases probe uptime and yield



WFL4.0

PMD4.0

PRODUCT COMPARISON

Product	Loose debris removal	Oxide debris removal	Wear uniformity	Durability	High temperature applications
Probe Polish	×	×	-	-	-
H-P Probe Polish	×	Х	_	×	Х
H-P WFL4.0 and PMD4.0	×	×	Х	×	Х

PRODUCT OFFERINGS

Unlock the full potential of your semiconductor testing equipment with Entegris' cutting-edge Probe Polish solutions.

MATERIAL	PART NUMBER	DESCRIPTION
H-P Probe Polish	RNPHP-15A-0015A0	High Performance, 15003, 300 mm Wafer, NEX
	RNPHP-15A-0080	High Performance, 15003, 210 × 297 mm, PK4
	RNPHP-15A-0064	High Performance, 142 × 155 mm, PK4
H-P WFL4.0	RNPW4-15A-0015A0	WFL4.0, 15003, 300 mm Wafer, NEX
	RNPW4-15A-0080	WFL4.0, 15003, 210 × 297 mm, PK4
	RNPW4-15A-0064	WFL4.0, 15003, 142 × 155 mm, PK4
H-P PMD4.0	RNPP4-15A-0015A0	PMD4.0, 15003, 300 mm Wafer, NEX
	RNPP4-15A-0080	PMD4.0, 15003, 210 × 297 mm, PK4
	RNPP4-15A-0064	PMD4.0, 15003, 142 × 155 mm, PK4

THE HIGH-PERFORMANCE PROBE POLISH ADVANTAGE

With Entegris' advanced cleaning materials, you can trust in superior performance, enhanced durability, and reduced operational costs to keep your operations running at peak efficiency. Our precision cleaning solutions offer tailored, user-defined maintenance for probe cards ensuring consistent and reliable connections, extended probe card lifespan, reduced downtime, and cost savings, all while enhancing your quality control and test accuracy. Whether it's routine maintenance or specialized cleaning needs, our solutions are tailored for all types of probe card cleaning applications, ensuring your testing processes are always at their best.

To request samples, <u>contact Entegris today</u>.



LEARN MORE

No other company has both the expertise and experience to provide transformative new solutions for your processes. For more information, please contact <u>customer service</u>.



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