



3M Science.
Applied to Life.™

3M™ Trizact™ CMP Pads

Redefining CMP.

Designed to deliver predictable, stable, consistent performance to your Chemical Mechanical Planarization process – every time.

With trends like IoT, smart cities, connected transportation, mobile and edge computing driving our world, semiconductor devices that deliver more memory and speed are in demand. The pressure is on to improve performance and cost-effective consistency of the Chemical Mechanical Planarization (CMP) process of semiconductor manufacturing. Demand to continually increase yield leaves no room for variation in a fab's production that risks waste or device reliability. 3M is redefining CMP products with our 3M™ Trizact™ CMP Pads to help ensure consistent CMP process performance.

Advanced performance for your advanced nodes.

Our Trizact CMP Pads blend 3M's know-how in molding, surface modification and microreplication, delivering an innovative pad for CMP process for advanced node semiconductor manufacturing.

- ▶ Uses precisely engineered three-dimensional microreplicated asperities and pores to define the pad texture and help ensure consistent performance pad-to-pad – meeting the demands of advanced node CMP processes.
- ▶ Asperities and pores are arranged into independent unit cells to enable uniform pressure across the wafer.
- ▶ Our highly controlled microreplication process delivers repeatable and tunable CMP pads.

Reduced variability and increased repeatability – helping to deliver improved yield.

Innovative groove design of the 3M™ Trizact™ CMP Pad with independent unit cells — shown here as an optical microscope image.

Consistency.

Designed to deliver the CMP performance you need, 3M™ Trizact™ CMP Pads are engineered using our proprietary microreplication process. The result is a pad that is consistent and well characterized, helping to ensure that tomorrow's pad is the same as today's.

- ▶ Uniformity in the polishing process
- ▶ Consistent texture from pad to pad
- ▶ Stability through pad life

Improved yield.

Consistent and repeatable CMP performance helps lead to increased yield. Trizact CMP Pads help increase planarization efficiency, reduce defects, and improve productivity and output.

- ▶ Improved planarization efficiency to enable advanced node CMP
- ▶ Reduced dishing and erosion
- ▶ Less pad debris for fewer defects

Reduced consumables.

Our proprietary approach to microreplication helps to deliver a longer pad life and eliminates the need for a diamond pad conditioner.

- ▶ Reduced metal contamination risk
- ▶ Lower cost of ownership
- ▶ Longer life, less downtime

Visit us at [3M.com/TrizactCMP](https://www.3M.com/TrizactCMP) to learn more and connect with our experts.

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Electronics Materials Solutions Division
3M Center, Building 224-3N-11
St. Paul, MN 55144-1000 USA

Web www.3M.com/electronics
Phone 1-800-810-8513

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