



HPQ Achieves Pilot-Scale Milestone in Commercial Fumed Silica Production, Sets Sights on Higher-Value Market Segment

*Leading global manufacturer confirms that material achieved a surface area of **136 m²/g**, more than triple previous results and confirming HPQ's single-step process can match commercial-grade benchmarks*

MONTREAL, Canada, September 4, 2025 — [HPQ Silicon Inc.](#) (“HPQ” or the “Company”) (TSX-V: [HPQ](#), OTCQB: [HPQFF](#), FRA: [O08](#)), a technology company driving innovation in advanced materials and critical process development, is pleased to report that its subsidiary, **HPQ Silica Polvere Inc.** (“**HSPI**”) ^[1], has successfully produced commercial-grade fumed silica during Test #6 of its proprietary **Fumed Silica Reactor (“FSR”)** pilot project.

The test, conducted by technology supplier [PyroGenesis Inc.](#) (TSX: [PYR](#), OTCQX: [PYRGF](#), FRA: [8PY1](#)), **achieved a surface area of 136 m²/g**, a performance benchmark consistent with commercial specifications. The results were provided directly by a leading global fumed silica manufacturer with whom HPQ maintains a Letter of Intent (LOI).

“With Test #6, we achieved a core objective: demonstrating that our Fumed Silica Reactor can replicate lab-scale surface area results at pilot scale,” said Bernard Tourillon, President and CEO of HPQ Silicon Inc. and HPQ Silica Polvere Inc. *“This is a pivotal validation of both the process and the product—confirming that we can now produce commercial-grade fumed silica in a single-step, scalable operation.”*



Image 1: Demonstrates the scale of performance milestones reached in Test #6, validating HPQ's process scalability

Key Performance Gains from Test #6

Following the process optimizations made after Test #5, as disclosed in HPQ's [August 20, 2025, release](#), test #6 of HPQ's Fumed Silica Reactor yielded critical advances in material performance:

- Surface area increased by 309% compared to the previous test, demonstrating significant process refinement.



- The material achieved a specific surface area of 136 m²/g, falling within HPQ's internal lab-scale benchmark range of 135–185 m²/g ^[2]—a strong indicator of reproducibility at pilot scale.
- Surface area of 136 m²/g now meets the requirement for commercial grades 90 (75-105 m²/g) and 130 (105-155 m²/g), and enters the lower range of grade 150 fumed silica products which have a surface area range of 135-165 m²/g ^[3]
- Carbon-based impurities were eliminated, resulting in a cleaner and more industrially desirable product.
- Scanning Electron Microscope (SEM) analysis confirmed morphological features consistent with those of commercial-grade fumed silica, further validating the material's quality.

“Our next phase will focus on pushing surface area performance into the 200 m²/g + range, which represents the high-demand segment of the commercial market,” added Tourillon. “While there’s no certainty, we’ll reach that threshold in the immediate next test, having solved the most complex hurdles to get here, we believe the remaining challenges are manageable and that our pathway to commercialization remains strong.”

REFERENCE SOURCES

- [1] A wholly owned subsidiary of HPQ Silicon Inc., when technology supplier PyroGenesis announced its intention to exercise its option to acquire a 50% stake in HSPI in May 2024.
- [2] From [HPQ November 8, 2023, release](#) that indicated that the independent analysis done at McGill University confirms that HPQ Polvere's lab scale Fumed Silica Reactor produces commercial-quality hydrophilic material with a surface area between 135–185 m²/g and excellent thickening efficiency.
- [3] From a management review of public information available on commercial fumed silica material available.

Clarification

The Company wishes to clarify the terms of the loan agreement announced in its August 20, 2025, press release. The loan may be converted into units at a price of \$0.18 per unit, with the accompanying warrants exercisable at \$0.25 per share for a period of four (4) years. All other terms of the agreement remain unchanged.

About HPQ Silicon

[HPQ Silicon Inc.](#) is a Quebec-based TSX Venture Exchange industrial issuer ([TSX-V: HPQ](#)) focused on innovation in advanced materials and critical process development. In partnership with its research and development partner **Novacium** — of which HPQ is a shareholder — the Company is advancing next-generation **silicon-based anode materials** (Gen3) for batteries, commercializing its **ENDURA+ lithium-ion cells**, and developing breakthrough **clean-hydrogen** and **waste-to-energy** technologies, for which HPQ holds exclusive North American rights.

HPQ is also pursuing proprietary technologies to become a low-cost, zero-CO₂ producer of **fumed silica** and **high-purity silicon**, with technical support from PyroGenesis Inc. Together, these initiatives position HPQ to capture growth opportunities in the energy storage, clean hydrogen, and advanced materials markets essential to achieving global net-zero goals.



For more information, please visit [HPQ Silicon web site](#).

About PyroGenesis Inc.

PyroGenesis, a high-tech company, is a proud leader in the design, development, manufacture and commercialization of advanced plasma processes and sustainable solutions which reduce greenhouse gases (GHG) and are economically attractive alternatives to conventional “dirty” processes. PyroGenesis has created proprietary, patented and advanced plasma technologies that are being vetted and adopted by multiple multibillion dollar industry leaders in four massive markets: iron ore pelletization, aluminum, waste management, and additive manufacturing. With a team of experienced engineers, scientists and technicians working out of its Montreal office, and its 3,800 m² and 2,940 m² manufacturing facilities, PyroGenesis maintains its competitive advantage by remaining at the forefront of technology development and commercialization. The operations are ISO 9001:2015 and AS9100D certified, having been ISO certified since 1997. PyroGenesis’ shares are publicly traded on the TSX in Canada (TSX: PYR), the OTCQX in the US (OTCQX: PYRGF), and the Frankfurt Stock Exchange in Germany (FRA: 8PY). www.pyrogenesis.com

Cautionary Note Regarding Forward-Looking Information

This press release contains forward-looking statements regarding HPQ Silicon’s Fumed Silica Reactor project. Such statements reflect management’s expectations on future performance, pilot plant testing, commercialization, financing, and strategic milestones. They involve assumptions about technology, market conditions, financing, permits, supply chains, and economic factors. However, risks—including delays, financing challenges, regulatory changes, competition, commodity prices, geopolitical factors, and market demand—may cause actual results to differ materially.

Readers are cautioned that forward-looking information is uncertain and not guarantees of future performance. Additional risk factors are detailed in HPQ’s Annual Information Form on SEDAR+.

A more detailed cautionary note regarding forward-looking information related to HPQ Fumed Silica is available for download [\[here\]](#).

Further information regarding the Company is available in the SEDAR+ database (www.sedarplus.ca), and on the Company’s website at: <http://www.hpqsilicon.com/>

Neither the TSX Venture Exchange nor its Regulation Services Provider (as that term is defined in the policies of the TSX Venture Exchange) accepts responsibility for the adequacy or accuracy of this release.

This News Release is available on the company's [CEO Verified Discussion Forum](#), a moderated social media platform that enables civilized discussion and Q&A between Management and Shareholders.

Source: HPQ Silicon Inc.

For further information contact:

Bernard J. Tourillon, Chairman, President, and CEO
Tel +1 (514) 846-3271
Email: Info@hpqsilicon.com