The Manager Companies - ASX Limited
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ASX Announcement
25 March 2026
(4 pages)

SEMICONDUCTOR SECTOR DEMAND RAPIDLY ACCELERATES

HIGHLIGHTS

AI INFRASTRUCTURE BUILD DRIVING GROWTH

- Increasing adoption of HPA materials across multiple applications linked to unparalleled AI capital expenditure:
  - Thermal fillers in semiconductor encapsulation
  - Alumina coatings of equipment components and chambers
  - CMP polishing for high bandwidth memory and power switching devices
- Alpha's products continue to penetrate supply chain

SALES AND DEMAND MOMENTUM BUILDING RAPIDLY

- Premium Japanese semiconductor customers upgrade LOI demand:
  - *Japan Customer #1:* Upgrades existing LOI volumes by 3.6x
  - *Japan Customer #2:* Upgrades existing LOI volumes by 1.6x
  - Further volume upgrades from each of these customers expected
  - Further CY26/27 supply contracts to Japanese customers under negotiation
- New 'low-alpha' alumina qualification for HPA in thermal spray coatings:
  - semiconductor equipment components
  - semiconductor etch chamber linings
- Lift in HPA volumes for semiconductor polishing (CMP) for:
  - High Bandwidth Memory (HBM) and
  - Power semiconductors for AI data centres
- Accelerated test work for high purity alumina hydroxides (ATH) for:
  - Semiconductor fillers
  - Water filtration

The Board of Alpha HPA Limited (**Alpha** or **the Company**) is pleased to provide an update on marketing activities for the **HPA First Project** and **Alpha Sapphire**, each representing the commercialisation of the Company's proprietary, exclusively licensed solvent extraction and HPA refining technology and production of critical high purity aluminium products into high technology markets. Alpha's ultra-high purity product capability includes:

- High purity aluminas (**HPA**),
- High purity alumina hydroxides (**ATH**)
- High purity aluminium nitrate precursors (**Al-Nitrate**), and;
- High purity synthetic sapphire glass

Alpha is in continuous production at its HPA First Project Stage 1, Precursor Production Facility (**Stage 1**) across the Company's full range of high purity aluminium materials and in construction of the full commercial scale **Stage 2** of the HPA First Project. Stage 2 of the HPA First Project will be the world's largest, single site facility for the manufacture of high purity aluminium materials.

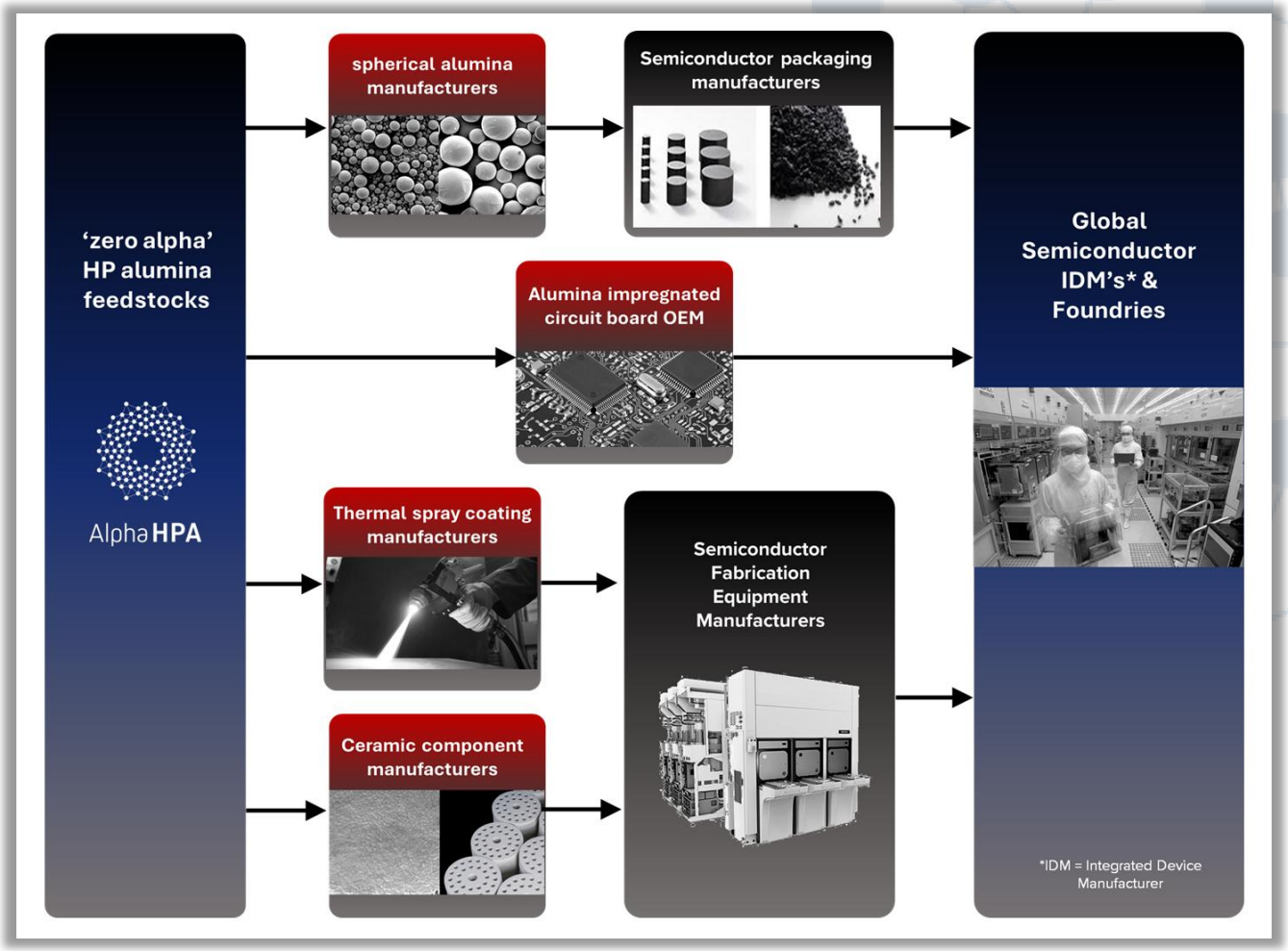
PRODUCT MARKETING
ACCELERATION IN SEMICONDUCTOR SECTOR DEMAND

Recent product marketing activity has highlighted the continued **rapid expansion of the adoption of high-purity alumina materials with the semiconductor supply chain**. Committed sales, letters of intent and accelerated qualification of Alpha's materials are steadily building within the sector driven by the Company's novel capability to offer:

- **Ultra-high purity alumina materials**, combined with;
- **Zero-alpha radiation emission materials** now considered critical for use within advanced node semiconductor manufacturing, processing and high-density packaging.

Recent marketing developments in the sector include:

- A premium Japanese customer manufacturing thermal fillers for the semiconductor sector has upgraded an existing Letter of Intent LOI of 100 tonnes per annum (tpa) to 360tpa for one of the high purity materials supplied by Alpha. Two other high purity alumina materials are now in the final qualification stage, and Alpha is anticipating similar volume upgrades for these materials in the coming months. **Alpha expects this customer will reach ~720tpa of total product demand.**
- A second premium Japanese end-user, specialising in semiconductor ceramics and thermal fillers for the semiconductor sector, has upgraded its Letter of Intent (LOI) from 60tpa to 96tpa. As this customer is at an earlier stage of the qualification cycle, Alpha expects volumes to scale significantly as multiple high-purity powder products complete qualification. **Alpha expects this customer's demand volume to surpass 700tpa.**
- LOI coverage for qualified product volumes has reached 6,900tpa (excluding the projected customer volumes)
- Further qualification testwork commencing for alumina ceramics in tooling fabrication.
- Alpha is also supporting increased qualification activity to meet a lift in indicated demand volumes for high purity aluminas for Chemical Mechanical Polishing (CMP), related specifically to:
    - Increasing adoption of HPA as the preferred CMP abrasive for 'hard carbon' masks, now used extensively in the fabrication of for high bandwidth memory (HBM) semiconductors
    - Increasing adoption of HPA as the preferred CMP abrasive for silicon carbide (SiC) semiconductors, increasingly being deployed in power switching with AI data centres
- Testwork continues for the use of Alpha's unique 'zero alpha emission' HPA to support higher thermal conductivity in printed circuit boards (PCB's) for AI data centres.
- A fresh set of inbound inquiry and commencement of qualification testwork to supply high purity alumina for thermal spray powder coating for the semiconductor sector. As for thermal fillers and ceramic tooling, this demand area is linked to emerging need to adopt low-alpha emission aluminas in the lining of semiconductor equipment (e.g. vacuum etch chambers), to accommodate the extreme sensitivity of advanced node semiconductors to alpha radiation emission.



Schematic showing Alpha's position in the semiconductor supply chain with respect to supplying 'zero-alpha' emission materials. Direct customer relationships shown in red boxes

OTHER SECTOR DEMAND

The semiconductor sector continues to dominate product demand. In parallel, the Company continues to support sales and qualification within the following sectors:

- *Synthetic Sapphire:* Alpha's priority customer in the sapphire glass sector has recently increased their CY2026 sales order from 1,500kg to 2,000kg of sintered HPA tablets reflecting increasing end-user demand for sustainable, low-carbon sapphire materials
- *Water Treatment:* Alpha is now supporting qualification for the use of both high purity alumina hydrate (ATH) as well as high purity aluminium nitrate for use in high volume use filtration to remove PFAS ('forever chemicals') from drinking water.
- *Pharmaceutical:* The Company continues to support qualification and testwork for the pharmaceutical sector, with an increasing focus on bio-ceramics.
- *Lithium-ion Battery (LiB):* The dominant marketing focus within the LiB sector remains the supply of Alpha's ultra-high purity Al-Nitrate product for improved battery safety and performance. The Company's highest priority end-user, a Tier #1 LiB anode manufacturer, has recently reported further good progress is qualifying the use of Alpha's Al-Nitrate in next their next generation synthetic graphite anode.

CAPACITY EXPANSION TO CAPTURE EXTRA DEMAND

Alpha continues to make good progress toward increasing production capacity for Stage 1 to meet CY26 and CY27 demand from key customers and new end-users to enable Alpha to continue to maximise the capture of sales and qualification to establish itself within critical supply chains.

- *Jet Milling Capacity:* Alpha has executed a range of initiatives to increase existing jet milling capacity to current and future demand for milled products.
- *ATH Capacity:* The Company continues to optimise the ATH process circuit to steadily increase ATH throughput to meet continuing increases in both ATH product and GAP-X powders (which are manufactured directly from ATH).
- *Nano-milling:* The Company has further advanced the installation of specialist milling equipment to allow for the Company to have full in-house capability to deliver our novel, ultra-high purty alumina particle as a nano-powder within a liquid dispersion, consistent with the preferred delivery method for our end-users with the CMP sector. Installation will complete in April 2026, with delivery to CMP end users expected to commence by June 2026. The nano-milling unit will also service HPA production from Stage 2.

ABOUT PRODUCT MARKETING

Alpha operates a continuous global product marketing effort to secure the highest value end-user commitments to support each of its projects. The Company maintains a global network of marketing agents and an in-house sales and technical team. Product marketing is supported by test sample delivery and commercial sales from the Brisbane product development centre and the Stage 1 facility in Gladstone.

Alpha's marketing targets emerging demand for new technologies that align with the Company's proprietary process capabilities, in particular, these include:

- HPA and high purity ATH for the manufacture of spherical thermal interface materials (fillers) for parallel processing logic semiconductors (Data Centres & Artificial Intelligence (**AI**))
- HPA for Chemical Mechanical Polishing (**CMP**) of Silicon-Carbide (**SiC**) semiconductor substrates and hard-carbon masks for High Bandwidth Memory (**HBM**) chips
- HPA for fine ceramics, with a focus on semiconductor fabrication equipment components
- High purity, amorphous ATH for direct lithium extraction (**DLE**) sorbents
- Ultra-high purity Al-Nitrates for battery coatings and solid state electrolytes
- HPA and high purity Al-hydroxides for a range of pharmaceutical applications
- High purity, synthetic sapphire wafers for power-semiconductor and LED substrates

Alpha is sequentially adding sales, binding commitment, and letters of intent (LOI's) as detailed product qualification completes.

The Company is in product testing and qualification with >100 end-users.

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