polar performance MATERIALS

High Purity Alumina

Ultra-Pure for Ultra-Performance

sales@polarpm.com

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5N+ PURITY ALUMINA FROM A PATENTED PROCESS

Consistent Quality Superior Performance Maximum Yield

Our innovative manufacturing process focuses on improving yields and reducing total cost of ownership for our customers. We combine hydrometallurgy and pyrometallurgy to perform purification at a lower temperature and with less power, thereby reducing costs and improving the consistency of our product's purity.

Our Products

3N to 5N+ Alpha Powders

High Density 5N+ Pellets

High Density 5N+ Beads

Superior Characteristics

We provide products with our clients' needs in mind:

- **Ultra-Pure Quality**
  Highest purity levels (99.999%+) for powders, beads, and pucks with very low contaminants, which provide very high quality HPA for all applications.
- **Consistency**
  Consistent delivery of purity, particle size, surface area, and performance parameters for reliability
- **Customized Performance**
  Variety of pellet shapes and sizes, specific particle size and surface area, and tailored powder performance customized through contaminant control, dopants, and additives as needed

Applications We Serve

Sapphire Crystal Growth

For LED's, Optics, Defense, Watch / Camera Glass

Technical Ceramics

For Semiconductor Equipment, Semiconductor Chip Packaging, Cutting Tools, Medical and Industrial Applications

Battery Coatings

For Lithium-Ion Battery Separators, Anode and Cathode Materials for Electric Vehicles, and Energy Storage

Ceramic Composites

For Aerospace and Medical

Alumina Powders

For Durable Coatings, 3D Printing, and Additives for Polishing Slurries and Pastes

Epoxy Molding Compounds

For Electronics and Thermal Management Chip Making

The Polar Advantage

- **Eco-Friendly Manufacturing**
  Our environmentally sustainable process utilizes less power, has fewer steps, and recycles nearly all process chemistries lowering our carbon footprint and our customers' carbon footprint.

- **Customers First**
  Consistent delivery of products is tailored to meet our customer's performance, quality, and total cost of ownership needs.

- **North American Supplier**
  Our talented North American R&D and manufacturing teams help push your innovation to the next level.

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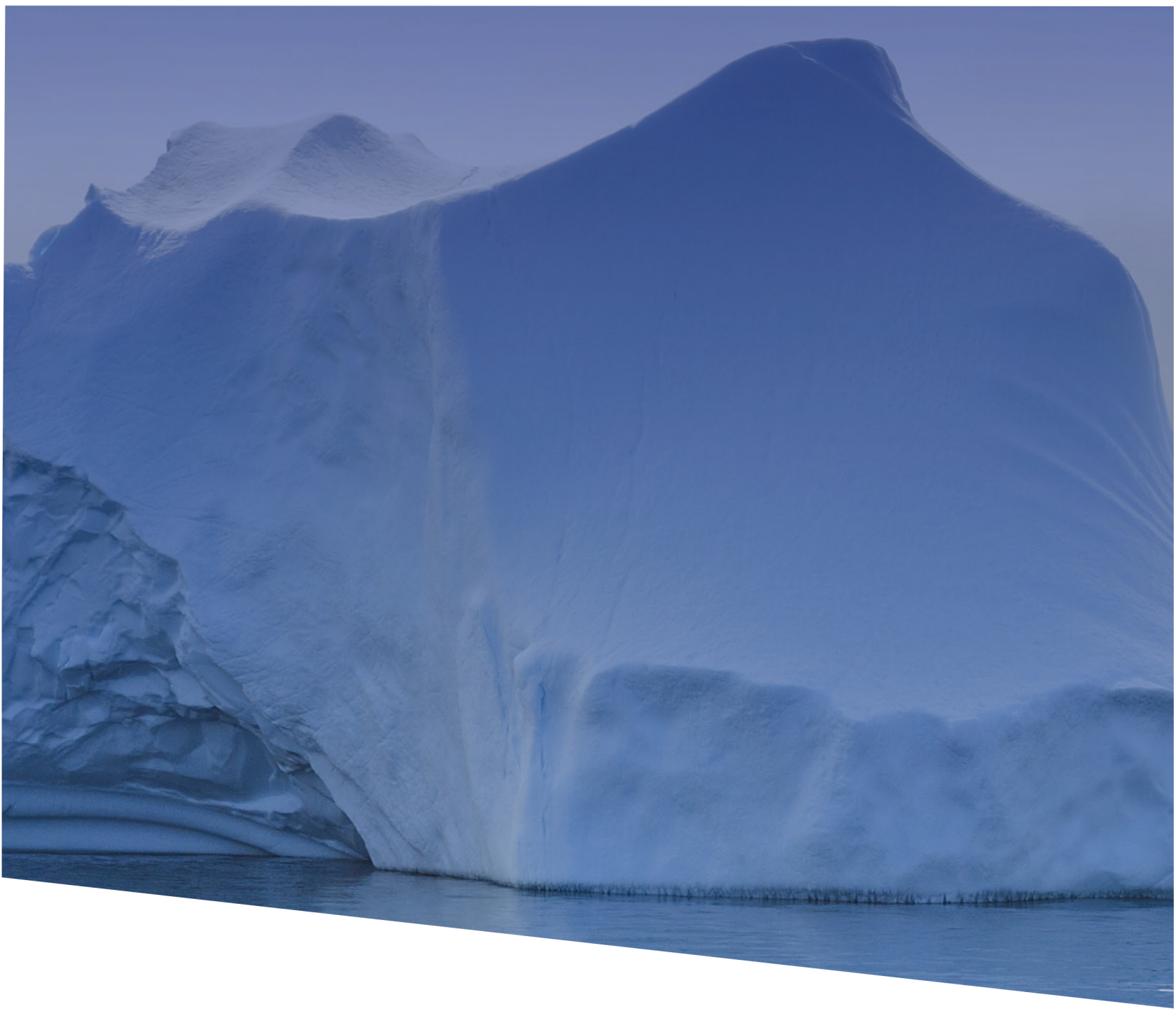

For Technical Ceramics: +1 989-798-2925

For Sapphire & Battery Applications: +1 416-885-1886

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