



DAI Products

Alumina Introduction and Overview -- We Wrote the Book on Alumina

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Independent Lab Test Show DAI Alumina Is the Highest Quality of Alumina in the Industry



While other companies merely re-sell purchased alumina products, the Dynamic Adsorbents' team wrote the book when it comes to activated alumina. We mean that literally, not figuratively. For more than 30 years, patented and patent pending innovations by the Dynamic Adsorbent's team have played a major role in the exponential growth of the use of alumina for chromatography, separation science and environmental cleanup technologies. Indeed, a major

reason for this growth has been our contribution to the standardization of the manufacturing process, yielding highly standardized grades of alumina.

Standardized alumina has become synonymous with Dynamic Adsorbents. Never before has a company produced an adsorbent that has such a high degree of reproducibility when used in laboratory and plant operations. DAI's alumina is not only the highest quality in the industry, but can be used for the widest range of applications thanks to development of specialized aluminas targeted to specific applications and our ability to customize alumina to best meet client needs.

DAI Activated Alumina

- Introduction and overview
- What is alumina and how is it made?
- Why is alumina superior to silica gel for most applications?
- How is DAI activated alumina superior to other alumina on the market?
- What types of activated alumina does DAI manufacture?
- For what applications can DAI alumina be used?
- What activated alumina and other products are used for what applications?
- DrySphere™
- DynaFLASH™
- Dyna-Aqua™ Product Line
 - Dyna-Aqua™ Uranium
 - Dyna-Aqua™ Copper
 - Dyna-Aqua™ Lead
 - Dyna-Aqua™ Fluoride
 - Dyna-Aqua Oil Sorb™
- More about Adsorption, Desiccants and Sorbents
- Alumina related technical articles
- Application technical specs

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2 DAI's Activated Alumina Is the Highest Quality Found in the Industry

Dynamic Adsorbents' aluminas are manufactured and quality assured to provide world class laboratory and pilot process chromatographic materials. **Recent independent lab research tests have shown Dynamic Adsorbents' alumina to be the highest quality in the industry, containing the least amount of trace metals.**

We carefully control the manufacturing process from raw material to finished product, precisely controlling physical characteristics of pore size, surface area, particle size and surface chemistry to ensure reproducible optimized chromatographic behavior for:

- K' - uniform capacity
- - reproducible selectivity
- R_x - improved resolution
- N - excellent performance

More about what types of alumina DAI manufactures

Many DAI Aluminas are Unique and Targeted for Specific Applications



DAI alumina can be used for all separation and purification techniques including flash, column, dry column, large column, thin layer, high performance liquid and high performance thin layer chromatography.

DAI produces a number of unique alumina products, many targeted for specific applications including; PCB and arsenic removal, pharmaceutical purification, contaminant removal from solvents, basic research, and chromatographic applications. DrySphere™ offers a unique, dust free, spherical activated alumina manufactured to maximize the ability to dry noble gases. The DynaFlash™ family of prepackaged alumina and silica gel cartridges are designed to achieve high resolution separations with injections of complex mixtures.

More about test results and comments by Dr. Moskovitz

Advantages of DAI Alumina over Competitors:



1. **Superior quality:** Independent lab analysis shows that DAI's alumina is superior in quality to anything in the marketplace, containing virtually no traces of metals - the least amount of metals compared with competitor's products. **Read more about the study**
2. **Widest range and more types of alumina products:** Dynamic Adsorbents is the only company offering a full range of alumina products that can handle a much wider range of applications. DAI offers the largest number of pore sizes and more quantity options than anyone in the industry. DAI is the market leader in chromatographic quality alumina.
3. **Customization:** DAI is the only company that can customize alumina for a specific application.
4. **Greater capacity and effectiveness.**
5. **Widest range of applications:** DAI's alumina can be used for pharmaceutical, industrial, biohazard, bioterrorism, research, toxic waste, environmental cleanup, gas and liquid dehydration applications. They can be used to remove: PCBs, insecticides, radioactive contamination, lead, toxic waste, heavy metals, colors or dyes, and chemical pyrogens
6. **Careful control of the entire manufacturing process** insuring high quality and uniformity, standardization, reproducible performance and optimized results. **All DAI products are manufactured under ISO 9001 manufacturing standards.**
7. **Maintains high inventory of alumina** allowing 24 hour global shipping in most instances.
8. **Unique DrySphere™ Product:** Optimizes desiccant performance and dehydrates gas or liquid in a way that no other product can offer. DrySphere™ are used for dehydrating LC solvents by placing them directly in the solvent reservoir and for removing various solvent vapors from air. **Read more**
9. **Particle distribution is kept extremely tight** providing you with reproducible results, both lot to lot and when you need to scale up.
10. **Unique but trend setting** in establishing the manufacturing criteria in alumina grading
11. **Aggressive pricing:** Because transactions are in US dollars, DAI can offer competitive pricing for global demand.
12. **Optional Packaging:** Alumina can be purchased in bulk quantities or in the DynaFLASH™ family of pre-packaged, disposable cartridges.

More about the DAI advantage

DAI Activated Alumina Is the Superior Adsorbent for Most Applications

While Dynamic Adsorbents continues to sell the "highest quality in the industry" silica gel, we encourage silica users to consider switching to alumina for many applications because of its superior performance. Alumina, due to its amphoteric properties (acting either as a base, acid or neutral PH) provides chromatographers with the ability to separate a multitude of compounds, surpassing the results achievable with silica gels. This means alumina can act as a weak ion exchanger demonstrating anionic or cationic properties, while additionally acting as an adsorbent. **For most applications, alumina is the way to go. To determine whether alumina is the best solution for you, be sure to take us up on our offer of 100 free grams of alumina. Contact us for more info by phone or email.**

More about the alumina advantage over silica

DAI to Expand Role in the Forefront of Separation and Environmental Cleanup Technology

DAI's role over the coming years is to remain in the forefront of separation and environmental cleanup technology by creating exciting new alumina and other products and solutions that most effectively deal with problems and issues impacting upon transportation, energy and public safety needs. Our goals are clearly focused. **Stay tuned to this website for exciting news about product launches.** We promise to demonstrate DAI's role in working with government agencies, cutting edge scientific laboratories and companies to more effectively deal with many of the longstanding and growing problems facing our country as we help develop a cleaner and safer environment and better protect the public.

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