



adton





# Company Profile

We're dedicated to pioneering excellence in bleaching earth solutions. With cutting-edge PLC-based automation technology driving our processes, we deliver superior products while minimizing our environmental impact. Our commitment to innovation, quality, and sustainability ensures that we exceed expectations every step of the way. Join us in shaping a cleaner, brighter future for industries worldwide."

## MISSION

Our mission is to pioneer excellence in bleaching earth solutions through innovation, quality, and sustainability. We strive to exceed industry standards while minimizing environmental impact, delivering superior products that empower industries worldwide.

## VISION

Our vision at Adton is to lead the way in sustainable manufacturing, setting new benchmarks for quality and environmental responsibility in the bleaching earth industry. We aspire to be the trusted partner of choice, driving positive change and shaping a cleaner, brighter future for generations to come.



# Manufacturing Process

We take pride in our state-of-the-art manufacturing facility, equipped with the latest technology to produce premium Activated Bleaching Earth. Here's a glimpse into our advanced process:

## 01 Raw Material Selection:

We meticulously select high-quality bentonite reserves from Gujarat, ensuring only the finest raw materials are used in our manufacturing process.

## 02 Granulation:

The selected bentonite lots undergo a granulation process, transforming them from lumps into high-quality wet granules. Each batch is rigorously checked for quality before proceeding to the next stage.

## 03 Acid Activation:

Our wet granules are subjected to a precise acid activation process, enhancing their performance and surface area. Through a meticulous 10-hour acid treatment followed by a 12-hour washing cycle, impurities and heavy metals are effectively removed, ensuring superior quality and extended shelf life for vegetable oils.

## 04 Neutralization:

Any spent acid or water is carefully neutralized using lime in our dedicated neutralization plant. The neutralized water undergoes filtration and reverse osmosis (RO) before being recycled, while gypsum produced in the process finds purpose in the cement industry.

## 05 Drying:

After activation, the bentonite granules are thoroughly dried using high-capacity driers, reducing moisture content to optimal levels for further processing and packaging.

## 06 Milling and Packaging:

The dried activated bleaching earth is meticulously milled and packed with precision. Whether it's paper packaging, jumbo bags, or bulk delivery via trucks, we ensure our products reach oil refineries – our valued customers – in their best form.

Our commitment to excellence and innovation drives every step of our manufacturing process, ensuring the highest quality standards for our valued customers.



## Product Properties & Advantages

Adton's Bleaching Earth offers unparalleled benefits and properties, setting it apart from others in the market:

### Acid Activation:

Our bleaching earth boasts a significantly higher contact surface area with neutralized oil, leading to superior adsorption of coloring pigments such as Chlorophyll, Carotenes, and Phosphorus. This unique feature translates to lower dosages required compared to other alternatives.

### Efficient Removal:

With its exceptional adsorption capacity, Adton's Bleaching Earth effectively eliminates gums (Phospholipids), Free Fatty Acids, and Soap Content from the oil, ensuring a cleaner and purer end product.



## Streamlined Filtration:

We've perfected the balance of particle size distribution to optimize oil filtration speed. By ensuring the right size distribution, we minimize filtration time, enhancing productivity without compromising on quality.

## Optimized Oil Retention:

Leveraging our expertise in porosimetry, we prioritize parameters such as pore diameter, total pore volume, and surface area to achieve optimum oil retention. With Adton, you can expect lower oil retention without sacrificing throughput, ensuring a highly efficient and effective bleaching process.

We're committed to providing solutions that not only meet but exceed industry expectations, delivering tangible benefits and value to our customers.

PARAMETERS	ADTON CRYSTAL BRITE	ADTON HYPER CLEAN	ADTON PURE CHOICE
Moisture Content (%)	15 Max	15 Max	15 Max
pH (10% Suspension)	2.5 to 3.5	4 to 5	5 to 7
Particle Size Passing (90micron)	80 Min	80 Min	80 Min
Average Particle Size (micron)	23 Min	21 Min	25 Min
Bleaching Efficiency % (Against. Lab Standard Sample )	95 Min	95 Min	95 Min
Acidity As H <sub>2</sub> SO <sub>4</sub> %	0.4 Max	0.4 Max	0.4 Max
Residual Acidity (MgKOHlg)	2.5(±1)	2.5(±1)	2.5(±1)
Absolute Bulk Density (gm/litre)	650 Max	650 Max	750 Max
BET Surface Area (m <sup>2</sup> /gm)	300 Max	300 Max	300 Max

## Controlled Bulk Density:

Adton, precision is paramount in our manufacturing process. That's why we utilize specialized, state-of-the-art equipment to assess the bulk density of our activated bleaching earth powder.

This advanced technology ensures that we maintain consistent and reproducible results, allowing us to achieve the highest standards of quality control and management throughout our processes. With precise and accurate information on bulk density, we can optimize our operations to deliver superior products consistently.

We leave nothing to chance when it comes to quality, ensuring that every batch meets our stringent standards for excellence.

## Controlled Residual Acidity:

In the quest for optimal performance, Adton offers Controlled Residual Acidity in our bleaching earth solutions. While some customers may seek high residual acidity for enhanced color removal, excessive acidity can lead to detrimental by-products in the oil. Adton's approach ensures precise control over residual acidity, striking the perfect balance between effective color removal and oil usability.

## Advantage of 3MCPD Reduction:

Adton's bleaching earth not only improves color removal but also significantly reduces 3-MCPD levels in edible oils. By prioritizing safety and quality, we contribute to healthier outcomes for consumers.

## Impactful Benefit:

With Adton, you can confidently bleach your oil, knowing that you're not only enhancing its quality but also protecting consumer health. Trust Adton for superior results and peace of mind.



# Applications of Adton's Bleaching Earth

## 01 Edible Oil Purification:

Adton's Bleaching Earth is ideal for purifying a wide range of edible oils, including:

- Soya bean oil
- Rice bran oil
- Palm oil
- Castor oil
- Mustard oil
- Cotton seed oil
- Sunflower oil
- Coconut oil



## 02 Industrial Oil Refining:

Our versatile bleaching earth is also suitable for refining various industrial oils, such as:

- Engine oil
- Mineral oil
- Diesel fuel
- Lube oil
- Paraffin wax



## 03 Waste Oil Regeneration:

Adton's Bleaching Earth plays a crucial role in the regeneration of waste oils, including:

- Waste engine oil
- Used cooking oil



## Major Equipment

We employ advanced equipment to ensure the highest quality standards in our manufacturing processes. Here are some of our major equipment:

### 01 UV Visible Spectrophotometer:

Used for analyzing the absorbance and transmittance of samples across a wide spectrum of wavelengths.

### 02 High-Pressure Vacuum Pump:

Essential for creating vacuum conditions in processes where low pressure is required.

### 03 Enables precise color:

Enables precise color measurement and comparison for accurate quality assessment.

### 04 Bulk Density Apparatus:

Essential for determining the bulk density of materials, ensuring consistency and uniformity in our products.

### 05 PH Meter – HANNA:

Provides accurate measurements of pH levels, crucial for maintaining optimal conditions in various processes.

### 06 Infrared Moisture Balance:

Utilized for measuring moisture content in samples, ensuring proper drying and quality control.

### 07 Filtration Unit:

Facilitates the filtration of materials to separate solids from liquids, crucial for refining processes.

### 08 Water Bath:

Used for maintaining constant temperature conditions during experiments and processes.

### 09 Oil Bath:

Provides a stable and controlled temperature environment for various heating applications.

### 10 Magnetic Stirrer:

Enables stirring of solutions or mixtures to ensure uniformity and homogeneity.



## Quality Systems and Methods

We've perfected the balance of particle size distribution to optimize oil filtration speed. By ensuring the right size distribution, we minimize filtration time, enhancing productivity without compromising on quality.

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### People:

We prioritize the development of our team through comprehensive training programs. This includes:

Job-specific training to ensure meticulous execution of tasks according to established guidelines.

Attitudinal training to foster a positive team spirit and a sense of ownership among our employees.

Continuous improvement initiatives that encourage reflection, analysis, and suggestions for enhancing methods and systems.

Training is not limited to production roles; it extends across all departments. We understand that our people are the backbone of our organization, and their expertise and dedication directly impact the quality of our products and the experiences we provide to our customers.

### Products:

Our commitment to quality extends beyond training programs. We consistently update our processes and control raw material input parameters to ensure the production of the best possible products. Quality checks are conducted at every stage of the process, and samples are rigorously tested in our state-of-the-art laboratory. This meticulous approach allows us to identify and address quality issues proactively, safeguarding the integrity of our products before they are dispatched to our customers.

At Adton, quality is not just a goal; it's ingrained in everything we do. We are dedicated to delivering products of the highest standard, backed by reliable systems, empowered people, and unwavering commitment to excellence.

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# Certificates



**ADTON BLEACH CHEM LLP**  
**KOSHER**



**ADTON BLEACH CHEM LLP**  
**HALAL**



**ADTON BLEACH CHEM LLP**  
**ISO 9001:2015**



**ADTON BLEACH CHEM LLP**  
**ISO 14001:2015**



# Certificates



**ADTON BLEACH CHEM LLP**  
**ISO 22000:2018**



**ADTON BLEACH CHEM LLP**  
**ISO 45001:2018**



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