Bleaching Earths
We UNDERSTAND Your REQUIREMENTS

We have our ROOTS In the PLANTATION industry

This has enabled us to UNDERSTAND Your refining NEEDS From a wider PERSPECTIVE
7 manufacturing plants in 3 countries
480,000 mt

total production of acid activated bleaching earth per year
COMPLETE range of bleaching earth

For various types of EDIBLE OILS and FATS

Taiko acid activated clay is accepted virtually by all major refiners around the globe
UTILISING bleaching earth to its FULL POTENTIALS

We have been serving the oils and fats and non-edible oil industries for almost three decades, addressing problems and offering solutions on plant optimisation and enhancement of product quality and stability.
Bleaching earth **FUNCTIONS:**
removal of impurities by process of **ADSORPTION**-

1. Trace metals - 
   iron  
   copper 
2. Oxidative products – 
   hydro peroxides 
   phosphatides 
   ketones 
   aldehydes 
3. Pigments - 
   chlorophyll 
   xanthophyll 
   carotene
fit-for-purpose

MANUFACTURING
PROCESS
RAW CLAY → PRE-TREATMENT → ACTIVATION → WASHING

PRODUCT SILO ← CLASSIFYING ← DRYING ← FILTRATION ← EFFLUENT

GYPSUM ← TANKER ← LANDFILL ← WATER TO DRAIN ← DEWATERING PRESS ← NEUTRALISATION
EFFLUENT MANAGEMENT SYSTEM

with safety, health, environment, social and civil responsibilities in mind
certified

ISO 9001:2008

HALAL

KOSHER

HACCP
In compliance with

**FEDIOL**

food management system
Delivery info
Storage
Production
Raw clay mining site
Ground transport to port
Raw clay shipment
Raw clay stockyard

TAIKO bleaching earth TRACEABILITY
HOW ACTIVATION WORKS?

CLAY SHEET
CATIONS + WATER
CLAY SHEET

RAW CLAY

SILICA FROND

ACID ACTIVATED CLAY

KEY
- AL₂O₃
- SiO₂
- Ca²⁺
- Na⁺
- H⁺
Typical Crude Palm Oil Quality

- Carotene
- Chlorophyll
- Free Fatty Acids
- Hydroperoxides
- Aldehydes
- Ketones
- Phosphatides
- Iron
- Copper
- Moisture & Impurities
- Monoglycerides & Diglycerides
- Soap
BLEACHING

- Chlorophyll
- Soap
- Hydroperoxides
- Iron
- Copper
- Phosphorus

Carotene
Xanthophylls

Colour

Bleaching Plant

Impurities
WHAT MATTERS MOST

- Throughput Optimization
- Cost Competitiveness
- Quality Excellence
HOW TO KEEP THE PLANT RUNNING AT OPTIMUM THROUGHPUT CONSTANTLY

1. MOST AND FOREMOST IS TO PREVENT THE PROCESS SYSTEM FROM FOULING.

2. MINIMISE RECYCLING SLOP OIL BACK INTO THE PROCESS BY REDUCING ITS GENERATION
IN WHAT WAYS CAN FOULING BE PREVENTED

1. DRY DEGUMMING MUST BE EFFECTIVE WITH PROPER SELECTION OF HIGH EFFICIENCY MIXING EQUIPMENT AND ACCURATE ACID DOSAGE.

2. USE A GOOD ACID ACTIVATED CLAY WITH HIGH IMPURITIES ADSORPTION AND SELECTIVE COLOUR PIGMENTS BLEACHING PROPERTIES.

3. HAVE A PLANNED ANNUAL THOROUGH CLEANING OF PROCESS EQUIPMENTS.
Why Bleaching Earth selection is important in a CPO refining plant

1. A typical dry degumming process only hydrates out 90% of the total gums present in the CPO.

2. A well engineered wet acid activated clay is able to adsorb all of the hydrated gums together with other trace metal contaminants and most of the heat stable pigments (carotenoids) from the CPO.
WE LISTEN AND PROVIDE EFFECTIVE SOLUTIONS TO OUR CUSTOMERS

THANK YOU

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