



Technical Data Sheet (TDS)

LumiClay® - Activated Bleaching Earth

Product Description

LumiClay® is a highly active acid-activated bleaching earth produced from carefully selected calcium bentonite. Fine, light-grey to off-white powder with high porosity and abundant acid sites. Formulated to adsorb pigments, peroxides, soaps, phospholipids, chlorophyll, trace metals and other impurities for superior color and stability.

Applications

- Refining edible oils & fats (soybean, sunflower, canola, palm, cottonseed, etc.)
- Animal fats and fish oils
- Mineral oils, paraffins & waxes purification
- Industrial oils and reprocessing of used lubricants

Typical Physical & Chemical Properties

| Property | Value / Range |
|--------------------------------|------------------------------|
| Appearance | Fine greyish-white powder |
| Apparent Bulk Density | 500 - 650 g/L |
| Free Moisture (2 h, 110°C) | 8 - 12 % |
| Loss on Ignition (2 h, 1000°C) | ~7 % |
| pH (10% suspension) | 3 - 6 |
| Acidity | ~0.3 mg KOH/g |
| Chloride Content | ≤ 0.1 mg Cl/g |
| BET Surface Area | ~170 - 200 m ² /g |
| Micropore Volume (0-80 nm) | ~0.25 - 0.28 ml/g |
| Filtration Performance | Fast grade (40 - 70 s) |

Particle Size Distribution (Typical)

- >150 µm : ≤ 6 %
- >100 µm : ~12-15 %
- >63 µm : ~25-30 %
- >45 µm : ~40-45 %
- >25 µm : ~60-65 %

Chemical Composition (Typical, % w/w)

- SiO₂ : 1 - 1.5 %
- Al₂O₃ : 16 - 18 %
- Fe₂O₃ : 3 - 4 %
- MgO : ~2 %

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- CaO : 60 - 65 %
 - K₂O : ~2 %
 - Na₂O : <0.3 %
 - Loss on Ignition : ~7 %

Advantages of LumiClay®

- High adsorption efficiency for pigments, phospholipids, and trace contaminants
- Fast filtration — reduced process time
- Low oil retention — improved yield
- Consistent quality with optimized pore distribution
- Suitable for both physical & chemical refining

Recommended Dosage (Guideline)

- Chemical refining: typically 0.5 - 1.0 % w/w of oil
- Physical refining / difficult oils: 1.0 - 2.0 % w/w of oil
- Optimize based on feed quality, target color and process

Packaging

25 KG multi-ply bags with PE liner. Jumbo bags available on request.

Storage & Shelf Life

Store in a dry, cool, well-ventilated area. Keep bags tightly sealed to avoid moisture uptake. Best used within 2 years from manufacturing date.

Manufacturer Details

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