

eco-friendly

EKASIL Animal Feed Additives

from rice husk silica



Rice Husk Silica

A sustainable and eco-friendly silicon dioxide product obtained from rice husk through specially designed technology that enables high-purity production with a silica content of up to 99.99%. Unlike typical silica sourced from sand, rice husk silica is an environmentally friendly product. It is obtained via waste utilization in a nonpolluting, low-energy-consuming manufacturing process. Thanks to controlled production, the products can be customized with various physico-characteristic properties to match customers' specific requests, if any. Rice husk silica is a green and efficient utilization of waste with outstanding purity, making it an excellent choice for environmentally conscious individuals and companies.



1. AntiTox and AntiTox Extra

Challenges

AntiTox and AntiTox Extra are used for the prevention and treatment of severe forms of intoxication, disorders of the gastrointestinal tract and their prevention, dyspepsia, and various poisonings in animals. They neutralize toxins, allergens, and harmful substances, remove heavy metals from the body, boost immunity, facilitate the digestion of feeds, and regulate the exchange of micro- and macro-elements.

Solutions

- Treats and prevents gastrointestinal diseases, as well as intoxications by neutralizing toxins and harmful substances in feed, which inhibit the growth and development of animals
- Regulates micro and macro elements

Results

- Increases the weight gain of animals at the end of rearing by 3-7%
- Reduces feed costs, obtaining 1 kg of live weight gain by 4-8%
- Serves as metabolism accelerating element for all internal organs
- Increases the safety of the livestock of young animal

Specification



Basic Properties

AntiTox

AntiTox Extra

Average particle size D50 (laser diffraction), μm	12 - 16	10 - 15
Oil absorption number (for DBF), ml/100g	≥ 200	≥ 200
pH level	6.0 - 8.0	6.0 - 8.0
Sulfate content (Na_2SO_4), % mass	≤ 2.0	≤ 2.0
Silicon dioxide content, % mass	≥ 95	≥ 98

2. Active

Challenges

Active is used to compensate for the lack of energy in the diet of cows. It reduces the likelihood of ketosis and excessive loss of body weight after calving, increases milk productivity, boosts the fat content in milk, improves reproduction indicators, and contributes to an increase in the average daily growth of young animals during rearing and fattening.

Solutions

- Contains 60-65% pharmaceutical-grade propylene glycol in dry powder form
- Rapidly absorbed in the rumen and enters the liver through the bloodstream, where the contained propylene glycol participates in glucose synthesis
- Contains an energy value up to 16-17 MJ NEL per kg of dry matter

Results

- Increases dairy productivity of cows by 2-4 liters per day (the proportion of protein and fat in milk increases by 0.2-0.3 units)
- Reduces the levels of toxins in both the body and milk
- Helps cows undergo gestation painlessly and give birth to strong and healthy offspring
- Lowers the overall incidence rate

Specification



Basic Properties

Active

pH level	6.0 - 8.0
Sulfate content (Na_2SO_4), % mass	≤ 2.0
Silicon dioxide content, % mass	33 - 38
Loss on drying (by 105°C), % mass	≤ 10.0

3. FF: Free Flow

Challenges

FF is specifically developed to enhance free flow and prevent caking of animal feed, addressing a common challenge faced by manufacturers. The utilization of anti-caking agents is widespread due to the fact that humidity, pressure, and temperature collectively contribute to clumping and clogging problems. These environmental variables also have impacts on the overall quality and shelf life of the product. So, incorporating FF in manufacturing processes not only ensures smooth operations but also helps maintain the superior quality and extended shelf life of animal feed.

Solutions

- Prevents sticking, clumping and caking of animal feed
- Ensures uniform feeding and correct dosage during the production
- Provides excellent quality throughout the entire shelf life of the product, thereby helping to maintain presentation

Results

- Effectively prevents clumping and improves the flowability of animal feed
- Adsorbs excess moisture during storage, reducing the risk of mold development
- Makes feed production more economically efficient
- Provides mixtures and processed products of higher quality and homogeneity

Specification



Basic Properties

FF

Appearance	White Powder
Average particle size D50 (laser diffraction), μm	8 - 16
Specific surface area (BET analysis), m^2/g	160 - 400
Oil absorption number (for DBF), $\text{ml}/100\text{g}$	≥ 200
pH level	6.0 - 7.5
Sulfate content (Na_2SO_4), % mass	≤ 2.0
Iron content in term of Fe_2O_3 , mg/kg	≤ 500
Mass fraction of silicon dioxide, %	≥ 97
Loss on drying (by 105°C), % mass	≤ 6.0

A close-up photograph of a white chicken with a prominent red comb and wattle. A person's hand, wearing a blue sleeve, is holding a small amount of yellow feed (likely corn or rice) in their palm, offering it to the chicken. The background is blurred, showing other chickens in a farm setting.

EKASIL

www.ekasil.com

www.ekasil.com (+66) 63-446-1740 satawat@ekasil.com