NIGABIND

A Comprehensive pelleting partner...

" What look like pellet may not be a complete PELLET "

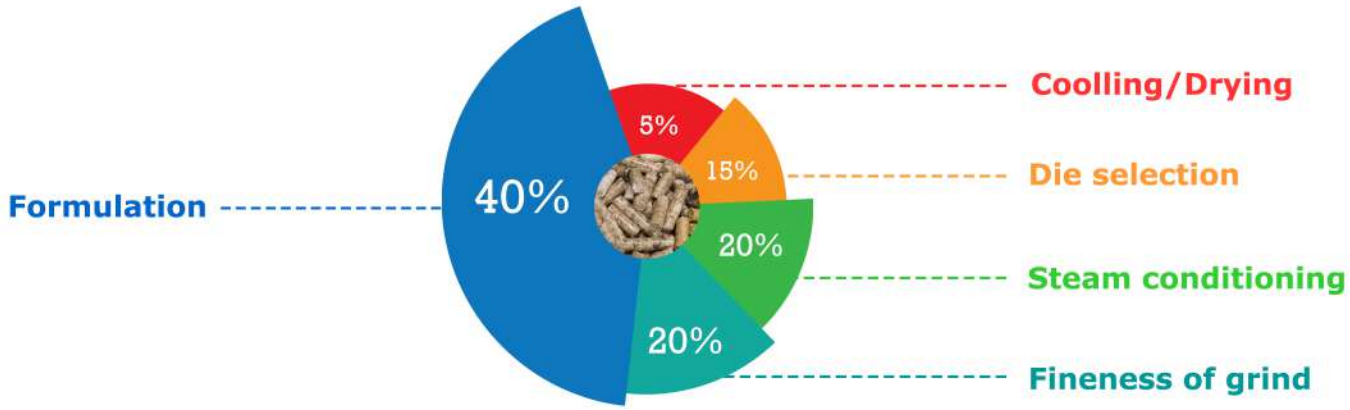
"Aquaculture animal's performance highly depends on the water stability of pellets by holding the nutritional value until it is consumed by the animals. "

NIGA
NUTRICHEM PRIVATE LIMITED

"Seeing is not believing"

The pelleting of animal feed is more art than science. There are many variables which affect the pelleting process, viz. machinery used, feed materials processed and the conditioning of the feed. Mean particle size, inherent binding capacity and fat content of the feed mixture plays major role in pellet durability

Factors contributing pellet quality



Factors affecting pellet quality

Particle size – Optimum particle size determines pellet quality. Decreasing particle size allows absorption of condensing steam and increases surface area available for binding.

Nature of Ingredients – Factors influencing ingredients like Starch, protein and fibre. Addition of fat compromises pellet durability but adding Protein and fibre increases pellet quality

Mixer – Suitable mixer with sufficient mixing time is important to allow pellet binder mix with feed particles completely to get optimum CV Ratio. If mixing is perfect, rest of the process will also be uniform.

Preconditioning - Steam quality, initial moisture content, meal initial temperature and retention time are important parameters in preparation of pelleting

Die and rolls - Die and rolls quality, proper speed of rotation, maintenance of die and role is ultimate check point to get perfect pellet output. L : D ratio (Thickness and hole diameter ratio). Thinker die increases the pellet durability and also negatively related to throughput and energy consumption.

Steam conditioning - high quality steam determines the pellet quality overall. High quality steam allows thinnest possible die which gives better pellet output.

Conditioning time – longer retention time > better penetration of moisture > better distribution of heat > better binding of feed particles > better pellet quality. Optimum moisture 13 – 17 % and temperature 77 to 88O C as the feed enters the die.

Steam pressure - Increasing the pressure of the steam used for conditioning improves pellet durability.

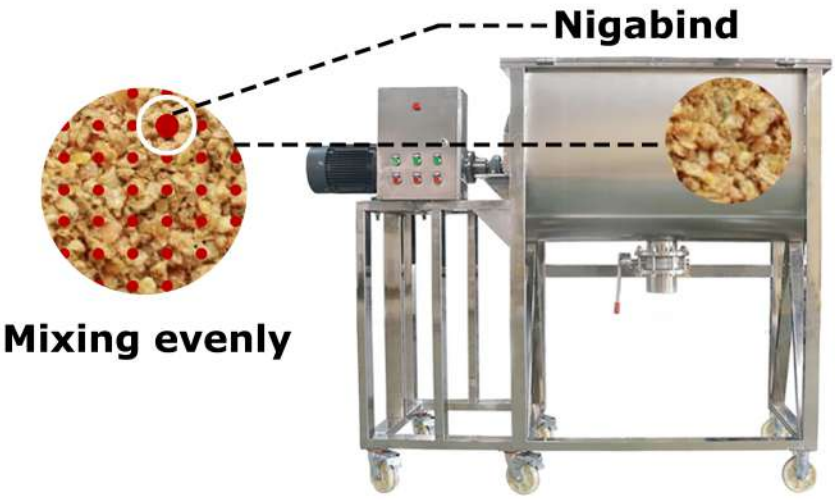
NIGABIND

NIGABIND is a scientifically formulated thermo-reactive synthetic resin based pellet binder. Its unique technology to function effectively in all stages of aqua feed production process to produce durable and high quality pellet feed especially for aquatic animals. NIGABIND make sure the pellet quality is optimum to serve complete Nutrient in the feed to the aquatic animals by maintaining water stability.

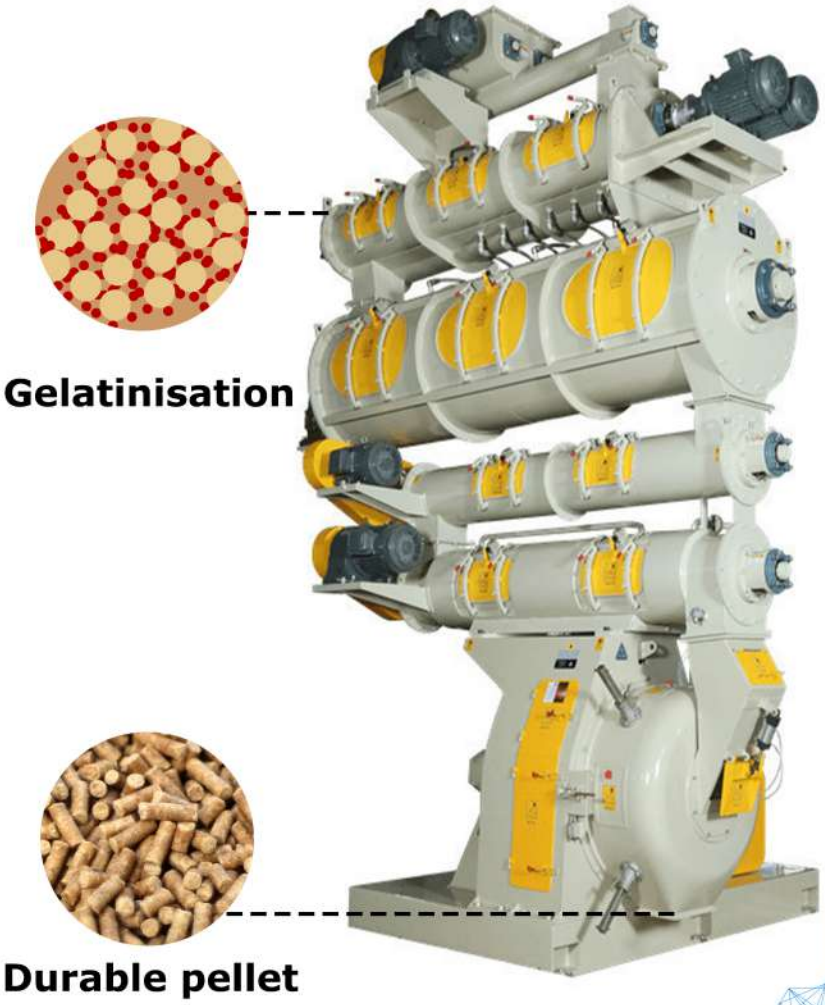
Composition : A spray-dried urea-formaldehyde resin.Low level of free formaldehyde & melamine free.

NIGABIND's contribution in the process of production

Mixer - NIGABIND mixes with all size of feed particles irrespective of any density and nature. "Mixing uniformly is the primary function of getting high quality pellet output in the pellet machine."



Conditioner - NIGABIND quickly converts gelatinisation when it contacts with optimum temperature and steam in the conditioner within the retention time and chelate on the surface of the feed powder particles and binds each other. "A good binder plays important role in conditioner by binding the micro particles completely for better pelleting"



Pellet machine - NIGABIND does major role in the pellet mill by optimally lubricating the feed materials in the lower energy and penetrating through die smoothly to bring complete pellet in good shape, size, finish and durable.

NIGABIND is the only choice

NIGA
NUTRICHEM PRIVATE LIMITED

1. Attracting appearance
2. Reduces the energy consumption
3. Uninterrupted production
4. Supports top coating medicines in the pond level
5. Quality pellet in shape, size & durability
6. Optimum water stability
7. Supports digestibility
8. Reduces fines during production & transportation

10 Reasons why NIGABIND should be your choice for pellet binding to serve precious Feed to the Aquatic animals

1. Nigabind uniformly mixes with raw materials in mixer irrespective of its size, shape, nature and density.
2. Uniquely formulated binding efficacy with differently natured raw materials as NIGABIND has superior gelling technology.
3. Optimum pellet durability by holding the Nutritional value and extreme water stability in water until the Aquatic animals consume the feed.
4. The greater micro particles binding nature reduces fines during production, Transportation and multiple handling condition.
5. Nigabind supports to reduce the energy consumption also improves the productivity.
6. It reduces the die frictions so die life increases obviously.
7. Nigabind has no residual effects and it is nontoxic
8. The low inclusion rate reduces the cost and provide space to add precious ingredients.
9. Nigabind not only binds the surface of each pellet, it also binds each particles from inside the pellet to improve the durability.
10. Pellet quality would NOT decrease even during strong friction between pellets during transportation and handling.

Application: **NIGABIND** can be directly added into the feed mixer before pelletizing and extrusion process at the following recommended rate depending upon feed formulation and processing conditions.

Fish and Poultry feed supplement,
Not for Human, Cat and Dogs
Product of India

Dosage

Fish Feed	:	2.0-4.0kg/Ton of feed.
Shrimp Feed	:	3.0-8.0kg/Ton of feed.
Extruded Feed	:	1.0-2.0kg/Ton of feed.

Registered Office : SF No;274/6a, Valaty SS-X ,(Gingee Rd), Villupuram-604208, Tamilnadu, India.
+91 90437 01829
niganutrichem@gmail.com
www.niganutrichem.com