



# Production Method

## Power SS Coarse

### Semi Soluble Granular Humic Acids

Date: July 5th 2024

Approved by: Bernier Coto

## 1. DESCRIPTION of MANUFACTURING PROCESS

**Ingredients:** Water, KOH, Humalite MP30 (Black Earth Powder), Pea Starch, Zeolita, Sodium Lignosulfonate.

1. Powders of sodium lignosulfonate, zeolite and starch are introduced into the powder mixer in the necessary quantities according to the formula. (Binder powder mix)
2. The powdered humic acid introduced into the hopper that feeds the pan agglomerator, in a second hopper the mixture of the other powders with Lignosulfonate, zeolite and starch is added to be introduced into the pan agglomerator.
3. In the tank that feeds the liquids to the pan agglomerator, a mixture of water and KOH is introduced to be injected by the spray.
4. The dough formation process begins, the machine feeds the programmed quantities of the mixture of powders and liquids necessary so that little by little the dark black pan is formed, the operator controls the discharge and verifies the proper functioning of the mixture.
5. The machine unloads the prepared pan to the conveyor belt that takes it to the drying process. The humidity of the pan here is around 40%.
6. The granules are conveyed to a continuous heat drier where the product is exposed to a maximum heat of 75 C. There the product remains for 2 to 3 hours.
7. After drying, the product goes through a sieve machine where the different particle sizes are separated, for AG, GG and dust.
8. After the particle size selection, the product is transported to each of the packaging totes.

## 2. Process Flow Diagram

