

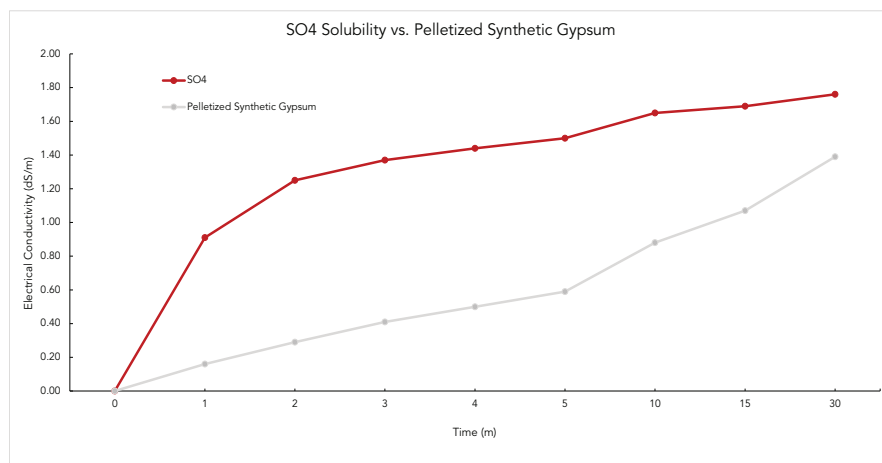
SO4: Superior Gypsum



The goal of using most products is to realize the benefits of that application as quickly as possible. Pelletizing materials is an art & science, and our expertise in this field has allowed us to develop a pellet that holds up in the ag retail chain and also solubilizes quickly in the field for maximum efficiency. Dissolution of gypsum into the soil solution is the most important factor in how effective it will be.

Chemical Composition

Due to the byproduct nature of synthetic gypsum, it is at the mercy of the manufacturing process and input that result in its production: coal. By nature, coal contains several heavy metals, including mercury. While technology has been able to assuage some concerns regarding mercury inclusion in the final product, 100% certainty cannot be guaranteed. Since multiple coal-fired plants are being used to supply the raw material for these products, chemical composition, and heavy metal content can vary widely.



SO4 is true dihydrate gypsum, mined from the purest source on earth and pelletized, ensuring it will go into solution, while synthetic gypsum pelletizing can result in pellets that will not effectively solubilize (more below).

This graph on the left illustrates the superior solubility of SO4 compared to pelletized synthetic gypsum.

Pelletizing & Particle Size

Pelletizing materials relies heavily on a specific particle size gradient to ensure the resulting pellets are neither too strong nor too weak. Weak pellets won't hold up in the distribution chain, and overly hard pellets won't solubilize in the soil and will ultimately under-perform. Materials composed of very fine particles like synthetic gypsum need specialized additives and processes to effectively make pellets - often resulting in reduced solubility.

The picture to the right shows pelletized synthetic gypsum (left) and SO4 (right) after simply sitting in water for 10 hours. The synthetic gypsum pellets have not broken down at all, while the SO4 pellets are completely broken down and available for incorporation into the soil solution. In the field, a jar of water isn't available for pellets to break down - think how much slower this process would be at the mercy of periodic rain to break them down. The bottom line is that insoluble pellets won't provide results for growers.

