

Borregaard LignoTech is one of the world's leading suppliers of high performance additives and ingredients to the animal feed industry.

High performance natural pellet binder

LignoBond DD is especially effective in feeds with high amounts of byproducts, pellets with a high fibre content or feeds containing fat in the mixer. It improves the hardness and durability of pellets, cubes and wafers, and is also ideal for pressed feed blocks.

LignoBond DD is 100% calcium lignosulphonate. Because it is a soluble fibre of plant origin, it also provides metabolizable energy and acts as a prebiotic. However, its greatest nutritional benefit continues to be its ability to improve pellet durability, conditioning and steam absorption, reduce fines, and prevent segregation of the feed.

Typical use rates are 0.5% to 1.0%. The usage rate will be dependent on the need, manufacturing equipment, mill conditions, ingredients, and formulation.

LignoBond DD improves all types of pelleted feeds:

- · All animal species
- · High-fat rations
- · High-grain rations
- High-fibre rations
- Urea supplements
- Specialty formulations



LignoBond DD° Nature's Best Binder



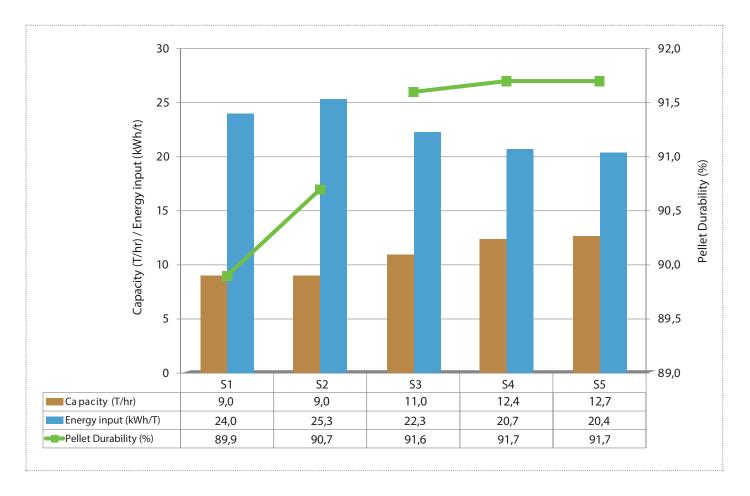






PERFORMANCE OF LIGNOBOND DD

Results achieved with 1% LignoBond DD on a cattle feed ration in Europe (4 mm pellets, 78 mm die):



Samples 1 and 2 contain no binder, while samples 3 to 5 contain 1% LignoBond DD.

- Production rate was increased by 41% with LignoBond DD
- Energy consumption was reduced by 19% with LignoBond DD
- Pellet durability was improved with LignoBond DD



