



**LALLEMAND BIOFUEL
& DISTILLED SPIRITS**

Spartec[®] PRO 110

Higher oil yield and reduced nitrogen addition.
Performance driven forward.

Spartec[®] PRO 110 is produced by fermentation of a strain of *Aspergillus niger*. This product is a processing aid used for fuel ethanol production and works to hydrolyze proteins into amino acids under relevant application conditions.

When added to fermentation, Spartec[®] PRO 110 releases corn oil, increasing corn oil yield. The hydrolysis of proteins liberates nitrogen that can be utilized by the yeast, reducing the amount added exogenously.



Spartec[®] PRO 110 – Key advantages

- Improved corn oil production
- Increased ethanol yield
- Increased yeast health
- Reduced nitrogen addition

Application

Spartec® PRO 110 is intended for use during propagation and/or fermentation in starch to fuel ethanol production in order to hydrolyze the protein present in the mash.

Characteristics

- Appearance: Clear brown liquid
- Specific Gravity: 1.05 – 1.20 g/mL
- pH: 3.5 – 5.0
- Enzyme name: Acid Protease (EC 3.4.23.18)

Storage And Stability

- Spartec® PRO 110 is stable for 24 months when stored in original sealed packaging at 4 °C – 8 °C.
- Spartec® PRO 110 should not be frozen.
- Keep container sealed and covered when not in use.

Package Sizes

Spartec® PRO 110 is available in 1,000 kg polyethylene totes.

Handling

Provide adequate ventilation. Wear protective goggles, chemical resistant gloves, coveralls or apron, and boots as necessary to prevent contact during handling.

In case of accidental contact with skin or eyes flush with water. See the Safety Data Sheet for further information.