Wir begleiten Ihre erfolgreiche Getränkeherstellung

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Brennereitechnologie

SCHLIESSMANN *-VF-*

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- Enzyme preparation for liquefying the starch in distilling mashes made from starchy raw materials originally native to our country (cereals, buckwheat, pumpkins) -

Technical information and instructions for use

Background:
The main purpose of mashing starchy raw materials in the distillery is to break down the unfermentable vegetable starch into fermentable sugars in the following three steps:

- The starch is gelatinized by mashing with water and heating the mash,
- enzymatic liquefaction of the gelatinized starch with SCHLIESSMANN -VF- and
- enzymatic saccharification of the liquefied starch.

Mashing is followed by fermentation of the released sugar to alcohol.

Product description:
SCHLIESSMANN *-VF-* is an enzyme preparation that has been tried and tested for more than 20 years for the enzymatic liquefaction of vegetable starch that has previously been thermally gelatinized by heating in water. The α-amylase of bacterial origin, which is the main enzymatic activity of this enzyme preparation, works optimally at pH values between 6.0 and 6.5 and in the temperature range between 65 and 75°C. It therefore corresponds well with the gelatinization temperature of the starch of wheat, rye, barley, oats, triticale and other raw materials native to our country. For maize, rice, millet and potatoes, whose starch only gelatinizes at 85-95°C, we recommend our enzyme preparation **SCHLIESSMANN VF -"Potato"-** due to its correspondingly higher heat stability.

Application purpose / effect:
SCHLIESSMANN *-VF-* simultaneously with the thermal gelatinization of the grain starch, causes its enzymatic liquefaction (liquefaction rest). On the one hand, this results in a significant reduction in the viscosity of the hot mash. On the other hand, the liquefaction of the starch is a prerequisite for its subsequent saccharification. Insufficiently liquefied mashes made from raw materials containing starch foam excessively during distillation and stick to the still.

Dosage:
approx. 20 ml / 100 kg Grain.

The required amount of enzyme is mashed directly together with the raw material. If water with a temperature of over 75°C is added, **SCHLIESSMANN -VF-** may only be added once the raw material has cooled down sufficiently after stirring.
The mash must then be heated to a few °C above the gelatinization temperature of the starch and kept hot for 30 minutes (liquefaction rest at 75-70°C).

Package sizes:

100 ml bottle	(No. 5045)
250 ml bottle	(No. 5043)
500 ml bottle	(No. 5044)
1 l bottle	(No. 5047)

Standardization:

The preparation is adjusted with water and glycerine to the activity stated in the specification.

Durability:
Cool storage at 4-6°C maintains the declared enzyme activity for at least 18 months.

Occupational safety:
As enzymes can cause allergic reactions, avoid direct contact with the product and inhalation of dried dust. In the event of accidental spillage or after skin or eye contact, rinse thoroughly with water immediately.