

# Instructions on how to produce vodka with our quality enzymes

**Vodka** is a clear distilled spirit produced from **grain neutral spirit** itself obtained from cereal grains such as wheat, corn, or rye. The grain neutral spirit is then further added to water to produce vodka. The fermentation and distilling process is a critical step in making high-quality vodka as it will give the percentage of alcohol the final product will have. Here, learn how to easily implement **enzymes** into your distilling process to increase your yield and improve the quality of your spirit.

**Disclaimer:** Please note that this is a general dosing guidance and that you can fine tune the dose further. Furthermore, enzymes are process aids and will not be present in the finalized spirit.

## Enzymes needed

- **Viscoferm®** - A viscosity-reducing enzyme
- **Liquoflow® GO 3X** - An Alpha Amylase
- **Saczyme® Plus 2X** - A Gluco Amylase

### Step 1: Start with 50 to 100gm of Viscoferm® (per ton of grain)

First, we would recommend adding around 50-100gm of **Viscoferm®** per ton of grain. To get the desired dry substance, cereal flour is mixed with water in the slurry mixing tank. This usually ranges between 18 to 28% w/w. By using a viscosity-reducing enzyme such as **Viscoferm®**, you will greatly reduce the viscosity of your production during the mixing stage. This is due to the properties of this type of enzyme that hydrolyzes arabinoxylans and NSPs (Non-Starch Polysaccharides) which are major components of small grains.

### Step 2: Add up 100gm of Liquoflow® GO 3X (per ton of grain)

Next, roughly add 100gm of **Liquoflow® GO 3X** per ton of grain. Because this enzyme is an Alpha Amylase, it will reduce the viscosity of your production by breaking down starch into small dextrins, thus preventing starch from becoming gelatinized.

### Step 3: Add up 250gm of Saczyme® Plus 2X (per ton of grain)

Then, the resultant liquefact is cooled down and transferred to the saccharification or fermentation vessel. At this stage of fermentation, we recommend adding up 250gm of **Saczyme® Plus 2X**. This enzyme is a glucoamylase and will break down dextrins into glucose.

## Grain neutral spirit is produced

Now that your grain neutral spirit is produced, you will need to add water. To attain specific niche flavors, you might consider using botanical herbs and spices.

## Let's get in touch

As the world leading enzymes producer, Novozymes offers products that are optimized for distilling. Experience optimal results first-hand and benefit from our expert consulting and enzyme samples -for free.

**Contact our team of distilling experts and start your enzymatic journey with us, today.**