

BEER PROTECT

(product reference: VBX)

BENEFITS ...

stability of flavor, aroma, appearance and color

extend shelf life

protect the beer ingredients output

enforce brand loyalty by standardizing beer drinking experience

MADE FOR...

Lagers

Pilsners

IPAs

Craft beers

VBX – BEER PROTECT is 100 % natural and organic certified by ECOCERT. It comes from renewable plants. (e.g. oak of the same grade used in barrels).

It is a blend of carefully selected, specially purified hydrolysable and condensed natural tannins of various molecular weights.

From years of R&D based in Belgium, we have managed to create a tannin blend aiming specifically to ***Protect beer against oxidation, staling and skunk-like taste.***

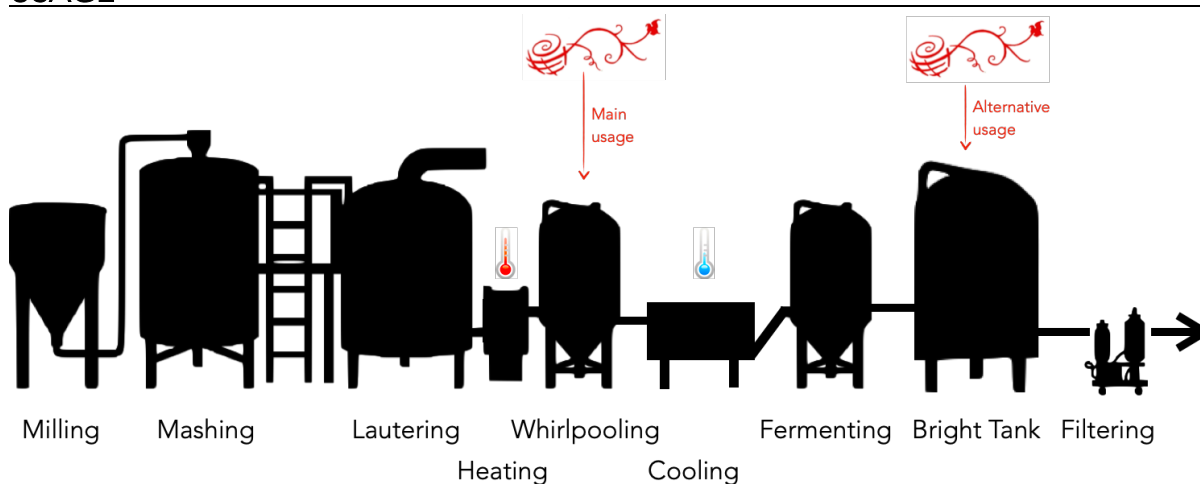
This boosted antioxidant formula is sold in liquid form for an easy usage. It is recommended to add VBX – BEER PROTECT directly into the Whirlpool. Nevertheless, it can also be added in the bright tank, however best results have been seen when used pre-fermentation.

VBX – BEER PROTECT does not impact ph, alpha/beta acids, yeast or other brewing factors.

PROPERTIES

Reference :	VBX
Designation :	VBX – BEER PROTECT
Appearance:	Nonhomogeneous mixture of powders or Powders in aqueous solution (Liquid)
Botanical origin :	French oak, Gall nut, Tara pod, and Vitis vinifera seed extracts
Odor :	Slight in solution, typical, oaky
Polyphenols (on dry material):	min. 75 %
Moisture:	max.9% (in powder)
Ash content:	max.2%
Heavy metals:	max 20 ppm

USAGE



Dosage in Whirlpool : 10 ml/HL (equiv to 1:10,000)
 Alternative Dosage in Bright Tank : 10 ml/HL

in cases of highly sensitive beers, exporting long distances, or extended shelf life, increased the dosage by 20%

standard clarification and filtration regimes does not impact turbidity or haze formation.

STORAGE AND HANDLING

The Liquid form is sensitive to frost, normal ambient storage temperatures (i.e. 5-25°C – 40-80°F) suffice.
 Storage of VBX – BEER PROTECT open to the atmosphere can result in uptake of contaminants from the surroundings. Therefore, we recommend on using the entire bottle at once or on a very short period of time.

PACKAGING

VBX is available 1 liter / 5 liters / 20 liters.
 can also be available in powder upon request.

FIGHTING STALE BEER.

Staling is a complex set of organic chemical changes that occurs in beer over time, transforming its flavor and causing it to diverge from the desired and expected flavor and appearance.

Stale beers tends to develop cardboard-like, sherry-like, and/or black currantlike flavors. Caramel flavors may also develop in pale beers, even those where no caramelized malts are involved in the brewing process.

Stability is also impacted, as it becomes darker in color, a change that will be particularly notable in pale beers such as pilsner. Hazes or precipitates will also eventually tend to develop in filtered beers.

Some consumers may not identify the typical flavors of stale beer, but they will definitely identify the consequential lack of freshness, the shifting of taste from their favorite beer, and thus impact the enjoyment of the drinking experience. This impacts their judgment on the beer quality and damage the brand loyalty.

Beer staling is slowed by colder temperatures and accelerated by warmer temperatures. Therefore the logistics chain and storage are key in protecting beer. Refrigerated logistics solutions are an answer that comes at costs. Apart from this option, experience shows that it is not always easy to ensure a safe logistics.

SKUNK-LIKE IS ANOTHER ISSUE

Many consumers associate skunk-like flavors with beer staling, but this is technically a form of damage by light and will not occur in beer kept under dark conditions. However, VBX – BEER PROTECT will help to lower the sensitivity to UV's.

BY WHY ?

Grains and malts naturally contain transition metals like cooper, iron and manganese. Those transition metals, in contact with oxygen, will create active oxygen species reacting with beer and leading to the onset of staling. Among others is the oxidative compound (E)-2-nonenal, which has a strong damp cardboard aroma. However, many other compounds contribute to the flavor of stale beer, particularly a large range of aldehydes.

HOW DOES **VBX – BEER PROTECT** WORKS

Our pure tannins will quickly and strongly quench these oxidative reactions, and so prevent and delay the onset of staling.

This technology was originally developed in order to extend red meat shelf life for Belgium supermarkets butcher shops. From our local partnerships with Belgium craft brewers, we have improved our process and recipe for an optimum result on beer.