



# BREWING PROCESS TECHNOLOGY



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## BIOTECHNOLOGY

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# BIOTECHNOLOGY



A COMPLETE RANGE OF STABILIZERS, CLARIFIERS, ENZYMES, SPECIFIC TREATMENTS, YEASTS, NUTRIENTS AND TANNINS FROM THE BREWHOUSE UNTIL THE FINAL PACKAGING.

Please note: the recommended dosage may vary depending on the processing conditions selected by the brewer. The format is varied depending on the country of origin. For exact amounts & formats please contact our technical commercial experts or your branch of reference.

## pH ADJUSTMENT OF THE BREWING WATER & WORT

BIOTECHNOLOGY

# ACID PFG

APPEARANCE  
Liquid

FEATURES



Acidifying agent for pH adjustment of brewing water and wort. Improves the mashing efficiency, brewhouse yield and reduces the polyphenol extraction during mashing, while providing a source of phosphorus readily usable by the yeast. Added to the brewing water 10/15 minutes after mashing or directly to the wort.

RECOMMENDED DOSAGE

DEPENDENT ON THE ORIGINAL pH OF THE BREWING WATER, MASH AND WORT.

STORAGE

STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE. CRYSTALLIZATION SENSITIVE PRODUCT. KEEP THE PRODUCT AT TEMPERATURES ABOVE 10°C.

CORE

# LACTIC ACID

APPEARANCE  
Liquid

FEATURES



Lactic Acid is an acidifying agent for pH adjustment of brewing water, mash and wort. It improves mashing efficiency, brewhouse yield and reduces the extraction of polyphenols during mashing. Added to the brewing water after mash-in or directly to the wort.

RECOMMENDED DOSAGE

DEPENDENT ON THE ORIGINAL pH OF THE BREWING WATER, MASH AND WORT.

STORAGE

STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE. CRYSTALLIZATION SENSITIVE PRODUCT. KEEP THE PRODUCT AT TEMPERATURES ABOVE 10°C.

BREWING WATER & WORT TREATMENT

pH ADJUSTMENT OF THE BREWING WATER & WORT

# MIX ACID CL

APPEARANCE  
Liquid

FEATURES



Acidifying agent for pH adjustment of brewing water, mash and wort. Improves the mashing efficiency, brewhouse yield, reduces the extraction of oxidizable polyphenols during mashing and extends the beer Flavor stability. Added to the brewing water after mash-in or directly to the wort.

RECOMMENDED DOSAGE

DEPENDENT ON THE ORIGINAL pH OF THE BREWING WATER, MASH AND WORT.

STORAGE

STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE. CRYSTALLIZATION SENSITIVE PRODUCT. KEEP THE PRODUCT AT TEMPERATURES ABOVE 10°C.

4

# ANTIOXIN SBT

BIOTECHNOLOGY

APPEARANCE  
Powder

FEATURES



New generation of antioxidant specially designed for the treatment of malted and unmalted cereals in the brewhouse. It inhibits LOX (i.e. lipoxygenase) activity responsible for the oxidation of lipids, the formation of aldehydes (i.e. trans-2-nonenal) and other oxidizable compounds present in the wort. Extends the beer Flavor stability.

CORE

RECOMMENDED DOSAGE

5-10 G/hL OF WORT DURING MASH-IN OR AFTER WORT BOILING.

STORAGE

STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT.

BREWHOUSE

# GALLOBREW

APPEARANCE  
Powder

FEATURES



A very purified gallotannin, which does not cause any undesired bitter or astringent flavors in beer. The high reactivity towards haze active (HA) proteins and enzymes (i.e. laccase, lipoxygenase, and others) optimises the wort clarification and prevents beer oxidation. It does not alter the beer colour and eliminates all traces of unwanted aromas by removing heavy metals.

PREVENTION OF THE HOT WORT OXIDATION

RECOMMENDED DOSAGE

7.5-10 G/hL OF WORT DURING MASH-IN OR AFTER WORT BOILING.

STORAGE

STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT.

## BREWHOUSE ENZYMES

BIOTECHNOLOGY

# ENDOZYM<sup>®</sup> ALPHAMYL SB1

APPEARANCE  
Liquid

FEATURES



Thermostable alpha-amylase of bacterial origin. It is used at higher temperatures in the brewhouse during cereal cooking and mashing in order to facilitate the hydrolysis of starch into maltose, soluble dextrins and glucose. Some of the main advantages are a quick reduction of the viscosity in wort, and optimization of brewhouse yield.

CORE

TEMPERATURE	65 - 105°C
pH	5.0 - 7.0
RECOMMENDED DOSAGE	200-300 G/T OF MALT ADDED DURING MASH-IN OR CEREAL COOKER.
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT, PREFERABLY AT A TEMPERATURE <20°C.

BREWHOUSE

# ENDOZYM<sup>®</sup> AMG

APPEARANCE  
Liquid

FEATURES



Enzymatic preparation of amyloglucosidase capable of hydrolyzing the alpha-1,4 and alpha-1,6 glycosidic bonds of starch. Its application allows the complete conversion of liquified starch into glucose. It can be used for the production of light or low-carb beers.

BREWHOUSE ENZYMES

TEMPERATURE	50 - 65°C
pH	4.5 - 6.0
RECOMMENDED DOSAGE	500-1000 G/T OF MALT ADDED DURING MASH-IN OR CEREAL COOKER.
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT, PREFERABLY AT A TEMPERATURE <20°C.



# ENDOZYM® BREWMIX PLUS

BIOTECHNOLOGY

APPEARANCE  
Liquid

FEATURES



Enzymatic preparation preventing most of the quality defects of raw materials (malt and unmalted cereals). The alpha-amylase ensures the saccharification of starch, therefore increasing brewhouse yield, while neutral protease activity enables the production of RAN (Readily Assimilable Nitrogen) for yeast nutrition. It also contains  $\beta$ -glucanases, pentosanase, cellulase, xylanase and arabanases that improve the wort filterability, the brewhouse yield and the beer filtration.

CORE

TEMPERATURE	50 - 75°C
pH	4.5 - 7.0
RECOMMENDED DOSAGE	300-800 G/T OF MALT ADDED DURING MASH-IN.
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT, PREFERABLY AT A TEMPERATURE <20°C.

BREWHOUSE

# ENDOZYM® GLUCACEL UHT

APPEARANCE  
Liquid

FEATURES



Thermostable  $\beta$ -glucanase with pentosanase, cellulase, xylanase and arabanase activity. It promotes the increase of mash filtration cycles and reduces the wort viscosity. Therefore, it optimizes the brewhouse yield and beer filtration performance.

BREWHOUSE ENZYMES

TEMPERATURE	50 - 75°C
pH	4.5 - 7.0
RECOMMENDED DOSAGE	200-300 G/T OF MALT ADDED DURING MASH-IN OR CEREAL COOKER.
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT, PREFERABLY AT A TEMPERATURE <20°C.

## WORT CLARIFICATION

BIOTECHNOLOGY

# POLYGEL BH

APPEARANCE  
Powder

FEATURES



Wort clarifier that acts both on average molecular weight proteins and polyphenols. It also acts as a combined stabilizer to avoid chill haze. Preserves beer color, aroma and taste. To be dosed at the end of the mash saccharification.

CORE

RECOMMENDED DOSAGE

10-40 G/hL OF WORT.

STORAGE

IT IS A SLIGHTLY HYGROSCOPIC PRODUCT AND MUST THEREFORE BE STORED IN A DRY PLACE.

# SPINDASOL SB1

WORT CLARIFICATION

APPEARANCE  
Liquid

FEATURES



Silica solution that improves the clarification of hot wort due to its surface area, particle size and charge. Improves colloidal stability, sedimentation of yeast during maturation and therefore the filterability of beer.

RECOMMENDED DOSAGE

15-30 ML/hL OF WORT.

STORAGE

STORE IN A COOL AND DRY PLACE, AWAY FROM DIRECT SUNLIGHT AND HEAT. KEEP AWAY FROM FROST (7°C MIN).

# FERMOCEL SB

BIOTECHNOLOGY

APPEARANCE  
Liquid

FEATURES



Biological and physical-biological regulator, fermentation activator of wort. It provides the indispensable mineral elements and vitamins needed for yeast growth and biological activity.

CORE

RECOMMENDED DOSAGE	15-30 ML/hL OF WORT.
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT.

# FERMOPLUS® FRUITY

FERMENTATION

APPEARANCE  
Powder

FEATURES



Brewing yeast nutrient with specific natural amino acids, ideal for obtaining beers with high tropical aromatic profile that synergistically enhances hop aroma with pleasant tropical fruit character.

YEAST NUTRIENTS

RECOMMENDED DOSAGE	20-40 G/hL DURING WORT COOLING.
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT.

## YEAST NUTRIENTS

BIOTECHNOLOGY

# FERMOPLUS® FRAGRANCE

APPEARANCE  
Powder

FEATURES



Brewing yeast nutrient with specific natural amino acids, ideal for obtaining beers with high floral aromatic profile that synergistically enhances hop aroma with elegant floral fragrance.

RECOMMENDED DOSAGE

20-40 G/hL DURING WORT COOLING.

STORAGE

STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT.

CORE

# FERMOPLUS® GSH

APPEARANCE  
Powder

FEATURES



Brewing yeast nutrient with antioxidant action for the improvement of the flavor stability of the beer produced. Patented nutrient based on yeast hulls, autolysates of yeast and thiamine hydrochloride (vitamin B1) and naturally contains 120 mg/kg of zinc necessary for the viability of the yeast.

RECOMMENDED DOSAGE

25-100 G/hL DURING WORT COOLING.

STORAGE

STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT.

FERMENTATION

# FERMOPLUS® INTEGRATEUR SB

APPEARANCE  
Powder

FEATURES



The balanced formulation of Fermoplus Integrateur SB promotes yeast vitality and thus produces beer without organoleptic defects caused by poor fermentation.

It is composed of organoleptically inert yeast bark, diammonium phosphate (DAP) thiamine hydrochloride and naturally contains 130 mg/kg of zinc necessary for the viability of the yeast.

RECOMMENDED DOSAGE

25-50 G/hL DURING WORT COOLING.

STORAGE

STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT.

YEAST NUTRIENTS

# FERMOLAGER BERLIN

BIOTECHNOLOGY

APPEARANCE  
Powder

FEATURES



YEAST STRAIN  
*Saccharomyces pastorianus*

BEER FLAVOR



German bottom fermenting yeast strain selected by the Technical University of Berlin. Rather neutral Flavor profile, slightly fruity esters tones with a soft and round mouthfeel. Used for the production of wide spectrum of lagers; e.g. Pils, Helles, Dark Lager, Bock & Doppelbock.

CORE

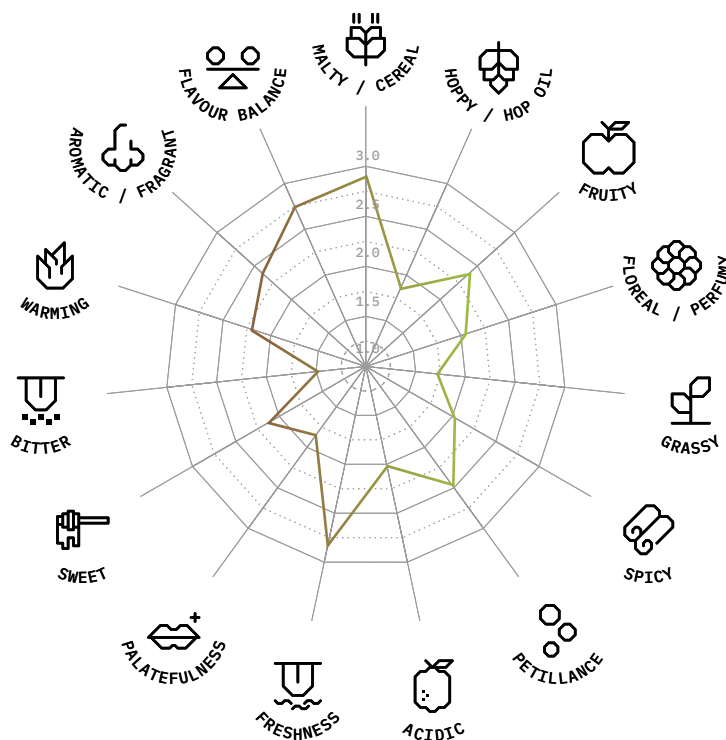
BEER STYLES	ALL TYPE OF LAGERS (I.E. LOW ALCOHOL TO STRONG LAGERS) AND CALIFORNIA COMMON.
FAST FERMENTATION KINETICS	3 DAYS AT 22°C, 13 DAYS AT 12°C FOR 12°P
FERMENTATION TEMPERATURE RANGE	10-22°C
APPARENT ATTENUATION	87%
FLOCCULATION & SEDIMENTATION	VERY HIGH

RECOMMENDED DOSAGE	80-100 G/hL OF 12°C TO 20°C COLD WORT
VIABILITY	> 1 X 10 <sup>10</sup> CFU/G
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT, PREFERABLY AT A TEMPERATURE <20°C.

FERMENTATION

## BEER FLAVOR PROFILE WITH FERMOLAGER BERLIN

(ACCORDING TO ASBC & DLG) 12°P 12°C



BOTTOM FERMENTING YEASTS

BOTTOM FERMENTING YEASTS

# FERMOLAGER W

BIOTECHNOLOGY

APPEARANCE  
Powder

FEATURES



YEAST STRAIN  
*Saccharomyces  
pastorianus*

BEER FLAVOR



CORE

German bottom fermenting yeast selected by Technical University of Munich Weihenstephan. The aromatic profile is neutral, fruity and very balanced. It is a high flocculating yeast and rapidly reduces diacetyl.

BEER STYLES	ALL TYPE OF LAGERS
FAST FERMENTATION KINETICS	3 DAYS AT 22°C, 13 DAYS AT 12°C FOR 12°P
FERMENTATION TEMPERATURE RANGE	10-22°C
APPARENT ATTENUATION	87%
FLOCCULATION & SEDIMENTATION	HIGH

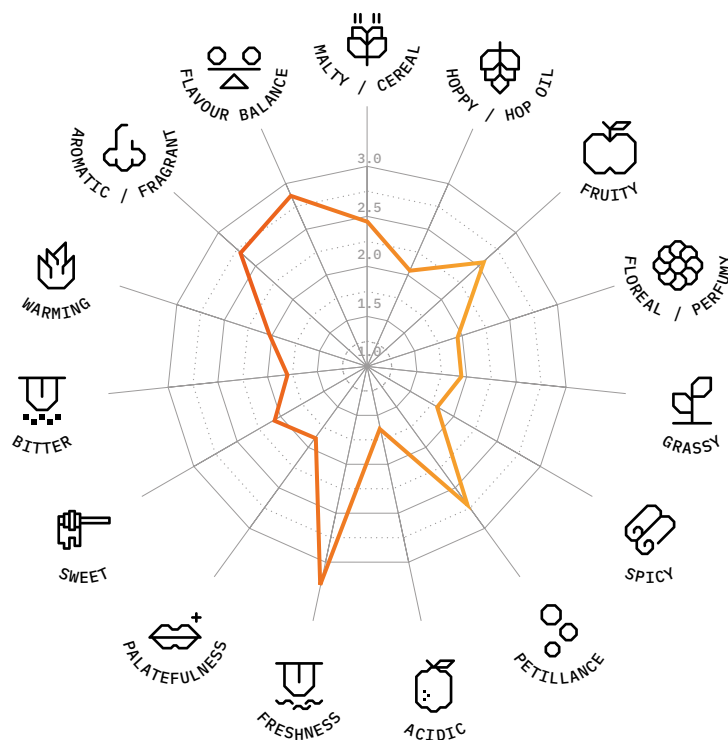
FERMENTATION

RECOMMENDED DOSAGE	80-100 G/HL OF 12°C TO 20°C COLD WORT
VIABILITY	> 1 X 10 <sup>10</sup> CFU/G
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT, PREFERABLY AT A TEMPERATURE <20°C.

BOTTOM FERMENTING YEASTS

## BEER FLAVOR PROFILE WITH FERMOLAGER W

(ACCORDING TO ASBC & DLG) 12°P 12°C



# FERMOALE

BIOTECHNOLOGY

APPEARANCE  
Powder

FEATURES



YEAST STRAIN  
*Saccharomyces cerevisiae*

BEER FLAVOR



Originating in Scotland, Fermoale is a top fermenting strain for brewing a variety of ales. It is a low flocculating yeast that provides a fruity and citrus flavor profile. It can also be used for production of modern ciders.

CORE

BEER STYLES	ALL TYPE OF ALES AND MODERN CIDERS.
FAST FERMENTATION KINETICS	FAST. 8 DAYS AT 22°C, 16 DAYS AT 12°C FOR 12°P
FERMENTATION TEMPERATURE RANGE	12-25°C
APPARENT ATTENUATION	87%
FLOCCULATION & SEDIMENTATION	MEDIUM-HIGH

RECOMMENDED DOSAGE	50-100 G/HL OF 12°C TO 20°C COLD WORT
VIABILITY	> 1 X 10 <sup>10</sup> CFU/G
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT, PREFERABLY AT A TEMPERATURE <20°C.

FERMENTATION

## BEER FLAVOR PROFILE WITH FERMOALE

(ACCORDING TO ASBC & DLG) 18°P 22°C



TOP FERMENTING YEASTS

TOP FERMENTING YEASTS

# FERMOALE AY3

BIOTECHNOLOGY

APPEARANCE  
Powder

FEATURES



YEAST STRAIN  
*Saccharomyces cerevisiae*

BEER FLAVOR



CORE

English top fermenting yeast strain, with a balanced flavor profile that highlights fruit and citrus. The yeast produces a soft and round palate, which is ideally expressed at high temperatures and on worts with low to medium density.

BEER STYLES	ALL TYPE OF ENGLISH-, IRISH-, BELGIAN- AND FRENCH ALES. VERY VERSATILE.
FAST FERMENTATION KINETICS	FAST. 7 DAYS AT 22°C, 13 DAYS AT 12°C FOR 12°P
FERMENTATION TEMPERATURE RANGE	12-22°C
APPARENT ATTENUATION	87%
FLOCCULATION & SEDIMENTATION	HIGH

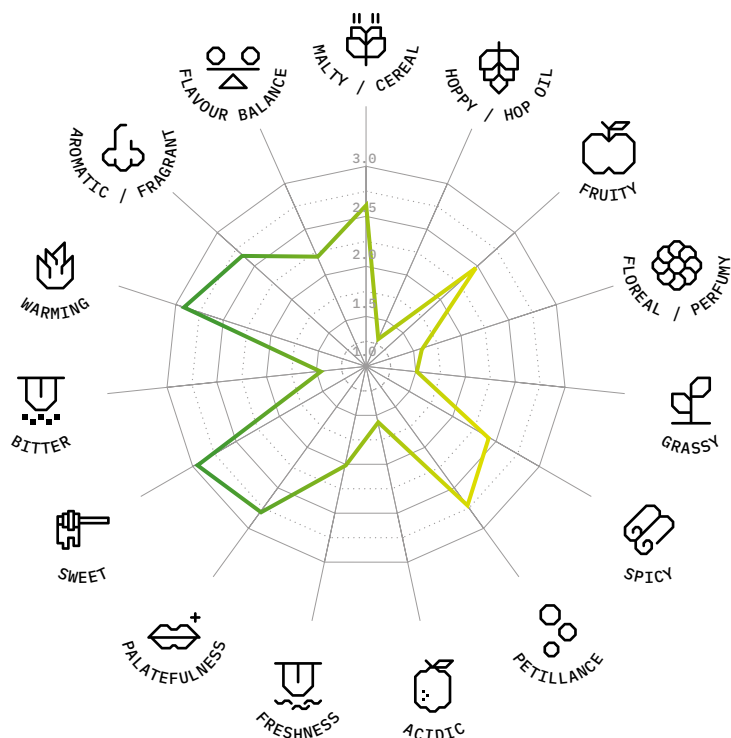
FERMENTATION

RECOMMENDED DOSAGE	50-100 G/HL OF 12°C TO 20°C COLD WORT
VIABILITY	> 1 X 10 <sup>10</sup> CFU/G
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT, PREFERABLY AT A TEMPERATURE <20°C.

TOP FERMENTING YEASTS

## BEER FLAVOR PROFILE WITH FERMOALE AY3

(ACCORDING TO ASBC & DLG) 18°P 22°C





# FERMOALE AY4

BIOTECHNOLOGY

APPEARANCE  
Powder

FEATURES



YEAST STRAIN  
*Saccharomyces cerevisiae*

BEER FLAVOR



American top fermenting yeast strain. It confers a very neutral Flavor profile, well balanced with a fresh and tender mouthfeel. Ideally for high temperatures, it allows the expression of other brewing raw material (i.e. malt and hops) flavors. Ideal for American IPA production. Ideal for American IPA production.

CORE

BEER STYLES	ALL TYPE OF AMERICAN ALES. VERY VERSATILE.
FAST FERMENTATION KINETICS	FAST. 7 DAYS AT 22°C, 13 DAYS AT 12°C FOR 12°P
FERMENTATION TEMPERATURE RANGE	12-28°C
APPARENT ATTENUATION	89%
FLOCCULATION & SEDIMENTATION	HIGH

RECOMMENDED DOSAGE	50-100 G/HL OF 12°C TO 20°C COLD WORT
VIABILITY	> 1 X 10 <sup>10</sup> CFU/G
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT, PREFERABLY AT A TEMPERATURE <20°C.

FERMENTATION

## BEER FLAVOR PROFILE WITH FERMOALE AY4

(ACCORDING TO ASBC & DLG) 18°P 22°C



TOP FERMENTING YEASTS

TOP FERMENTING YEASTS

# FERMOALE BEL-ABBEY

BIOTECHNOLOGY

APPEARANCE  
Powder

FEATURES



YEAST STRAIN  
*Saccharomyces cerevisiae*

BEER FLAVOR



CORE

Fermoale Bel-Abbey is a dry active top fermenting yeast strain especially selected for fermentation of a wide spectrum of Belgian style ales such as Abbey styles (i.e. Enkel, Dubbel, Tripel & Quadrupel), Belgian Pale-, Dark Strong Ale, Belgian Blonde- and Pale Ale. This strain confers a complex yet very clean and delicate fruity and phenolic Flavor character with reminiscences of dried fruits such as figs, raisins, plums and dates in harmony with the maltiness and alcohol content of the designed beer.

BEER STYLES	BELGIAN STYLE ALES SUCH AS ABBEY STYLES (I.E. ENKEL, DUBBEL, TRIPEL & QUADRUPEL), BELGIAN PALE-, DARK STRONG ALE, BELGIAN BLONDE- AND PALE ALE.
FERMENTATION TEMPERATURE RANGE	16-24°C
FLOCCULATION & SEDIMENTATION	MEDIUM

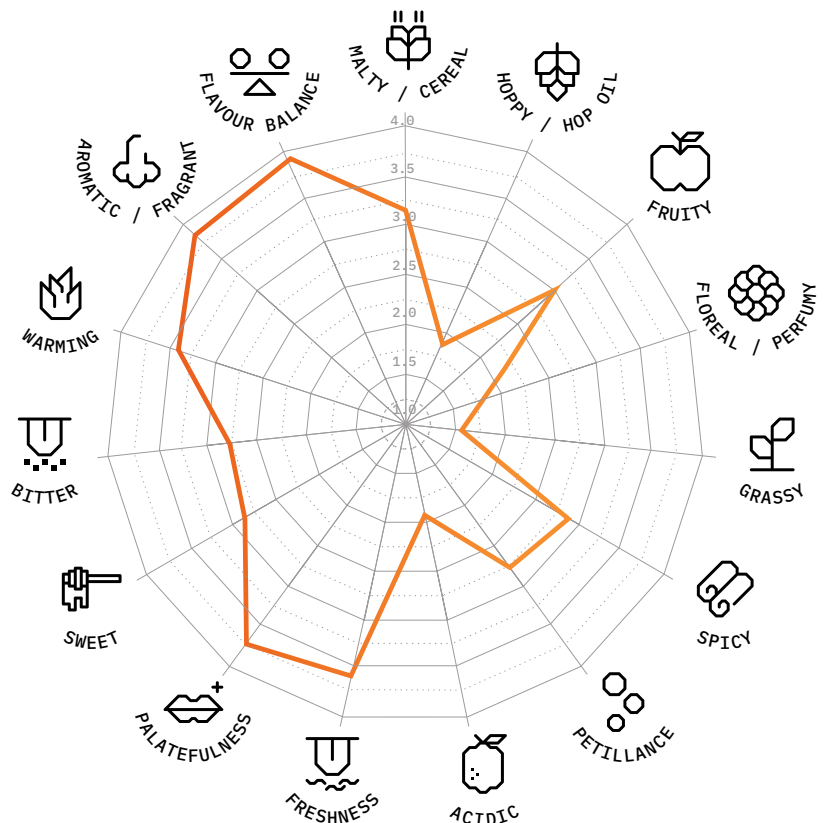
FERMENTATION

RECOMMENDED DOSAGE	40-80 G/hL AT 16-24°C
VIABILITY	> 0.5 X 10 <sup>10</sup> CFU/G
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT, PREFERABLY AT A TEMPERATURE <20°C.

TOP FERMENTING YEASTS

## BEER FLAVOR PROFILE WITH FERMOALE BEL-ABBEY

(ACCORDING TO ASBC & DLG) 18°P 22°C



# FERMOALE D'LA GRANGE

BIOTECHNOLOGY

APPEARANCE  
Powder

FEATURES



YEAST STRAIN  
*Saccharomyces cerevisiae var. diastaticus*

BEER FLAVOR



Fermoale D'la Grange is a versatile dry active top fermenting yeast strain especially selected for fermentation of French & Belgian Saison styles, and Bière de Garde style as well. This high attenuating strain confers a soft fruity, citrusy and phenolic spicy Flavor notes, with a refreshing, high drinkable and crispy character, yet with a rich mouthfeel.

CORE

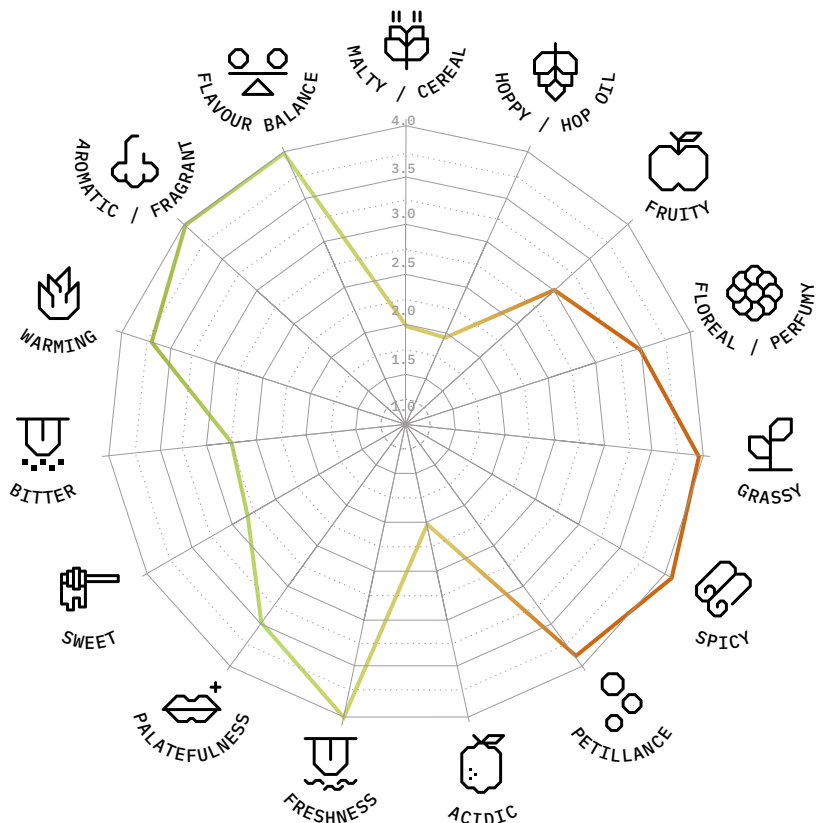
BEER STYLES	FRENCH SAISON, BELGIAN SAISON AND BIÈRE DE GARDE STYLE. VERY VERSATILE.
FERMENTATION TEMPERATURE RANGE	16-24°C
FLOCCULATION & SEDIMENTATION	LOW

RECOMMENDED DOSAGE	40-80 G/hL AT 16-24°C
VIABILITY	> 0.5 X 10 <sup>10</sup> CFU/G
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT, PREFERABLY AT A TEMPERATURE <20°C.

FERMENTATION

## BEER FLAVOR PROFILE WITH FERMOALE D'LA GRANGE

(ACCORDING TO ASBC & DLG) 18°P 22°C



TOP FERMENTING YEASTS

TOP FERMENTING YEASTS

# WEISS AROME+

BIOTECHNOLOGY

APPEARANCE  
Powder

FEATURES



YEAST STRAIN  
*Saccharomyces cerevisiae*

BEER FLAVOR



CORE

Top fermenting yeast for the production of wheat beers such as Blanche, American Wheat and Weiss. Weiss Arome+ has excellent fermentation capacity. This yeast has a low flocculating capacity and remains in suspension even in the final beer product.

BEER STYLES	WHEAT BEERS (I.E. WITBIER, WEISSBIER- / HEFEWEIZEN, KRISTALLWEIZEN).
FAST FERMENTATION KINETICS	FAST. 10 DAYS AT 12°C, 5 DAYS AT 25°C FOR 12°P
FERMENTATION TEMPERATURE RANGE	12-25°C
APPARENT ATTENUATION	95%
FLOCCULATION & SEDIMENTATION	LOW

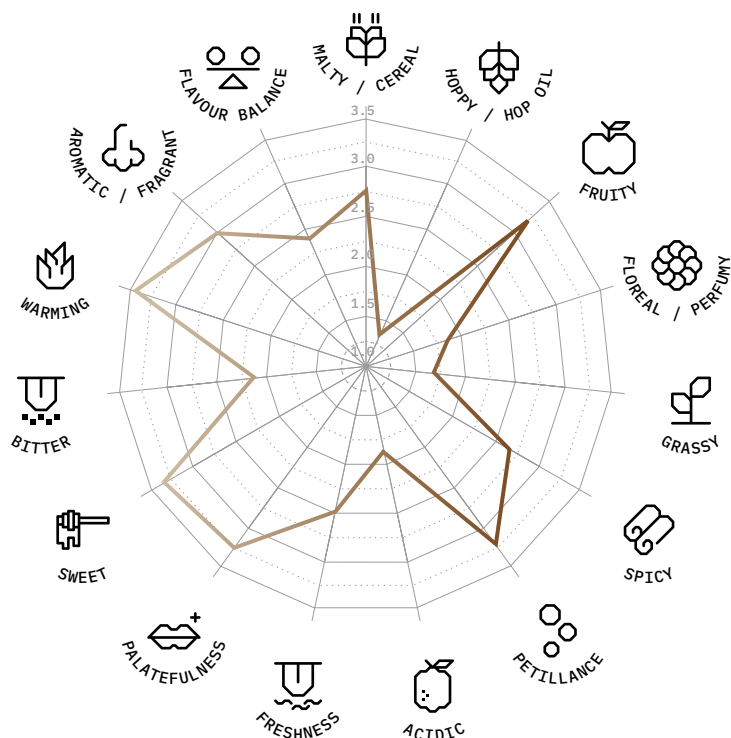
FERMENTATION

RECOMMENDED DOSAGE	50-100 G/HL OF 12°C TO 18°C COLD WORT
VIABILITY	> 1 X 10 <sup>10</sup> CFU/G
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT, PREFERABLY AT A TEMPERATURE <20°C.

TOP FERMENTING YEASTS

## BEER FLAVOR PROFILE WITH WEISS AROME+

(ACCORDING TO ASBC & DLG) 18°P 22°C



# FERMO R03

BIOTECHNOLOGY

APPEARANCE  
Powder

FEATURES



YEAST STRAIN  
*Saccharomyces cerevisiae*

BEER FLAVOR



Selected yeast for bottle and barrel fermentation (i.e. conditioning). It has good tolerance to alcohol, rapid fermentation kinetics and highly flocculation property. Fermo R03 metabolizes only simple sugars, which facilitates the dosage of sugars and the standardization of refermented beer. It preserves the beer flavour from the main first fermentation.

CORE

BEER STYLES	FOR ALL BOTTLE CONDITIONING BEERS.
FAST FERMENTATION KINETICS	FAST. 10 DAYS AT 12°C, 5 DAYS AT 22°C FOR 12°P
FERMENTATION TEMPERATURE RANGE	12-25°C
APPARENT ATTENUATION	95%
FLOCCULATION & SEDIMENTATION	VERY HIGH

FERMENTATION

RECOMMENDED DOSAGE	FILTRATED BEER: 2-7 G/hL OF BEER NON-FILTRATED BEER: 4-5 G/hL OF BEER STRONG BEER (>6,0% ABV) >7,5%: 8-10 G/hL OF BEER
VIABILITY	> 1 X 10 <sup>10</sup> CFU/G
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT, PREFERABLY AT A TEMPERATURE <20°C.

BOTTLE CONDITIONING YEASTS

FERMENTATION ENZYMES

# ENDOZYM® AGP 120

BIOTECHNOLOGY

APPEARANCE  
Liquid

FEATURES



Endozym AGP 120 is an enzymatic preparation containing amylo-glucosidases, alpha-amylases and pullulanases. Used for the treatment of beer during fermentation. Allows the hydrolysis of dextrans into fermentable sugars.

CORE

TEMPERATURE	10-20°C
pH	4.0-5.5
RECOMMENDED DOSAGE	5-15 G/hL OF WORT AT THE BEGINNING OF FERMENTATION.
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT, PREFERABLY AT A TEMPERATURE <20°C.

FERMENTATION

# ENDOZYM® PROTEASE GF

APPEARANCE  
Liquid

FEATURES



Endozym Protease GF is an enzymatic formulation with high proteolytic activity. (Competitive Elisa, mg/L), which allows the breakdown of gluten proteins without adversely affecting head retention (NIBEM).

- Proteolytic activities: > 450 U/g (EC N ° 232-642-4)
- Origin: *Aspergillus niger* and *Bacillus subtilis*

FERMENTATION ENZYMES

TEMPERATURE	10-25°C
pH	4.5-7.0
RECOMMENDED DOSAGE	2-6 G/hL OF WORT AT THE BEGINNING OF FERMENTATION.
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT, PREFERABLY AT A TEMPERATURE <20°C.

# POLYGEL PS30

BIOTECHNOLOGY

APPEARANCE  
Powder

FEATURES



Protein and polyphenol beer stabilizer. This PVPP and silica gel-based formula builds highly stable complexes with polyphenolic substances in beer and also adsorbs protein substances. This product does not affect the beer colour, Flavor and head retention.

CORE

RECOMMENDED DOSAGE

30-70 G/hL OF BEER AT THE END OF FERMENTATION, ADDED DIRECTLY TO THE BUFFER TANK OR TO THE DOSING UNIT DURING OR BEFORE BEER FILTRATION.

STORAGE

STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT, PREFERABLY AT A TEMPERATURE <20°C.

# SPINDASOL SB3

APPEARANCE  
Liquid

FEATURES



Spindasol SB3 is a silica solution that improves the sedimentation of yeast during beer maturation/conditioning. Utilization of the product leads to a more efficient and quicker sedimentation, as well as a reduction in the amount of yeast in beer filtration and clarification.

BEER STABILIZATION

RECOMMENDED DOSAGE

20-40 ML/hL OF BEER AT THE END OF FERMENTATION.

STORAGE

STORE IN A COOL AND DRY PLACE, AWAY FROM DIRECT SUNLIGHT AND HEAT. KEEP AWAY FROM FROST (7°C MIN).

# ENDOZYM<sup>®</sup> PROTEASE NP

BIOTECHNOLOGY

APPEARANCE  
Liquid

FEATURES



INDUSTRIAL

Enzymatic preparation obtained from a selected *Bacillus subtilis* strain that contains highly concentrated peptidase activities, which allow the release of amino acids and peptides. Added during mash-in in order to allow the production of RAN (Readily Assimilable Nitrogen) for yeast nutrition.

TEMPERATURE	45-55°C
pH	5-8,5
RECOMMENDED DOSAGE	30-50 G/T OF MALT ADDED DURING MASH-IN.
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT, PREFERABLY AT A TEMPERATURE <20°C.

BREWHOUSE ENZYMES





# POLYGEL PLUS

BIOTECHNOLOGY

APPEARANCE  
Powder

FEATURES



Pure PVPP formulation to stabilize polyphenols in beer. Allows adsorption of polyphenol complexes, limiting the appearance of chill haze.

INDUSTRIAL

RECOMMENDED DOSAGE

5-50 G/hL

STORAGE

IT IS A SLIGHTLY HYGROSCOPIC PRODUCT AND MUST THEREFORE BE STORED IN A DRY PLACE.

# PAPAYNASE NA

APPEARANCE  
Liquid

FEATURES



Original vegetable extract of papaya latex. It partially degrades the protective substances and micro-polypeptides responsible for colloidal instability in beer. It is used during the beer maturation. Thermal treatment (e.g. pasteurization) is required prior to bottling to stop the activity of this enzyme in final product.

BEER STABILIZATION

TEMPERATURE

10-25°C

pH

5.0-8.5

RECOMMENDED DOSAGE

0.5-1 G/hL

STORAGE

STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT, PREFERABLY AT A TEMPERATURE <20°C.

# SILIGEL S

APPEARANCE  
Powder

FEATURES



Either used on its own, or in conjunction with other stabilizing agents, such as PVPP, Siligel S absorbs the proteins responsible for colloidal instability, which consequently drop out, or are removed through filtration. It can also be used prior filtration to optimize the yeast flocculation (preferably at 20°C).

RECOMMENDED DOSAGE

10-100 G/hL

STORAGE

IT IS A SLIGHTLY HYGROSCOPIC PRODUCT AND MUST THEREFORE BE STORED IN A DRY PLACE.

## DEFOAMING AGENTS

BIOTECHNOLOGY

# BATFOAM SB1

APPEARANCE  
Liquid

FEATURES



Effective food grade, silicone-based defoaming agent, designed to inhibit foam during wort boiling or beer fermentation allowing the maximization of fermentation tank work capacity. Batfoam SB1 is removed from the beer stream by high adsorption to the brewing yeast at the end of fermentation.

SPECIFIC NEEDS

RECOMMENDED DOSAGE

3-5 ML/hL

STORAGE

STORE PREFERABLY AT A TEMPERATURE <20°C.

## BEER STABILIZATION

DEFOAMING AGENTS & BEER STABILIZATION

# ENDOZYM<sup>®</sup> PECTOFRUIT

APPEARANCE  
Liquid

FEATURES



Enzymatic preparation with high content in pectinases selected to aid the clarification of fruit beers and ciders.

TEMPERATURE

10-25°C

pH

3.0-6.0

RECOMMENDED DOSAGE

2-5 ML/hL IN UNFILTERED BEER.

STORAGE

STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT, PREFERABLY AT A TEMPERATURE <20°C.

# FILTRATION

EVERYTHING YOU NEED FOR THE FILTRATION OF YOUR BEER: FROM THE FILTRATION HOUSINGS AND THE FILTER ELEMENTS TO THE AIDS, THE POST-FILTRATION STABILIZERS AND THE TANNINS.

Please note: the recommended dosage may vary depending on the processing conditions selected by the brewer. The format is varied depending on the country of origin. For exact amounts & formats please contact our technical commercial experts or your branch of reference.

# DANMIL FILTER ELEMENTS

FILTRATION

MADE BY



CORE

## PROCESS STEP

### Process & rinse water treatment

NAME OF PRODUCT	APPLICATION	TECHNICAL CHARACTERISTICS	FILTRATION CAPACITY (NUMBER & SIZE OF FILTER ELEMENTS)
<b>BREW-PURE</b> is a cartridge or bag pre-filter [1-5 µm size].	Securing the microbiological quality of the brewing water. Depending on location and water quality, carbon filters may be needed to adsorb chlorine.	Optional: • UV light disinfection.	20 hL/h – Mini bag 2L 50 hL/h – Bag 7" x 1L 100 hL/h – Bag 7" x 1L 150 hL/h – Bag 7" x 2L 200 hL/h – Bag 7" x 2L  UV design to be discussed when needed, DANMIL have several options depending on customer need or placing.

## PROCESS STEP

### Beer polishing filtration

NAME OF PRODUCT	APPLICATION	TECHNICAL CHARACTERISTICS	FILTRATION CAPACITY (NUMBER & SIZE OF FILTER ELEMENTS)
<b>BREW SHINE PP</b> is a cartridge with graded multilayer PP structure, easy back washable to ensure long service life span.	Securing crystal clear beer.  3 µ for Ales* 1 µ for Lagers*  *Alternative options depending on customer requirements.	<ul style="list-style-type: none"> <li>• Thermo-welded polypropylene filter media, with no electric charge</li> <li>• Porosity 1, 3, 5, 10 µm, with absolute particle degree β 5000</li> <li>• Wide compatibility with regenerating and sanitizing products</li> <li>• Food grade</li> <li>• Configuration suitable for frequent chemical regeneration.</li> </ul>	20 hL of beer/h – 3 x 20" 50 hL of beer/h – 3 x 30" 100 hL of beer/h – 8 x 30" 150 hL of beer/h – 12 x 30"  Size guide: 4 hL of beer/h per 10".

FILTRATION ELEMENTS

## PROCESS STEP

### Beer packaging (canning, bottling & kegging)

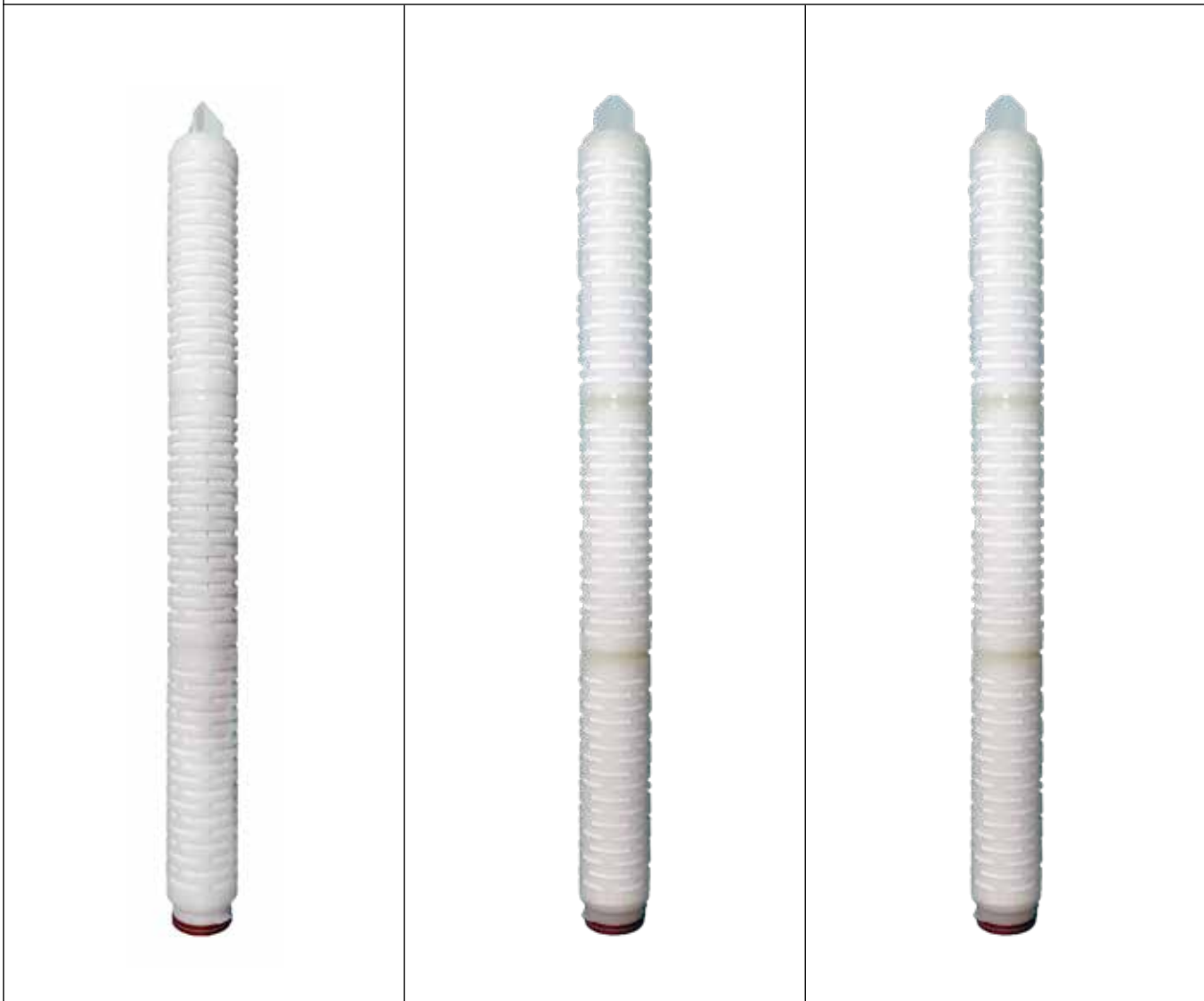
NAME OF PRODUCT	APPLICATION	TECHNICAL CHARACTERISTICS	FILTRATION CAPACITY (NUMBER & SIZE OF FILTER ELEMENTS)
<b>BREW FREE C</b> is a cartridge with special media filter designed for pre-filtration also known as police filtration to reduce the levels of chill & permanent haze and yeast in beer prior final cold sterile filtration.	Beer pre-filtration, also known as police filtration.	<ul style="list-style-type: none"> <li>• Thermo-welded polypropylene filter media, with no electric charge</li> <li>• Porosity ≤ 0.6 µm, with absolute particle degree β 5000</li> <li>• Wide compatibility with regenerating and sanitizing products</li> <li>• Food grade</li> <li>• Configuration suitable for frequent chemical regeneration.</li> </ul>	20 hL of beer/h – 3 x 20" 50 hL of beer/h – 3 x 30" 100 hL of beer/h – 8 x 30" 150 hL of beer/h – 12 x 30"  Size guide: 4 hL of beer/h per 10".

**PROCESS STEP**

**Beer packaging (canning, bottling & kegging)**

NAME OF PRODUCT	APPLICATION	TECHNICAL CHARACTERISTICS	FILTRATION CAPACITY (NUMBER & SIZE OF FILTER ELEMENTS)
<p><b>BREW FREE PES</b> is a cartridge filter for final cold sterile filtration. It is highly recommended for production of non-alcoholic beers when using arrested/interrupted fermentation.</p>	<p>Securing beer biological stabilisation.</p>	<ul style="list-style-type: none"> <li>• Hydrophilic polyethersulfone membrane with asymmetric pore structure, with no electric charge</li> <li>• Absolute porosity 0.45µm, microbiological protection is defined by specific microorganisms</li> <li>• Membrane integrity testable multiple times</li> <li>• Wide compatibility with regenerating and sanitizing products</li> <li>• Food grade</li> <li>• Configuration suitable for frequent chemical regeneration.</li> </ul>	<p>20 hL of beer/h – 3 x 20"                      50 hL of beer/h – 3 x 30"                      100 hL of beer/h – 8 x 30"                      150 hL of beer/h – 12 x 30"</p> <p><b>Size guide: 4 hL of beer/h per 10".</b></p>

Other brewing applications where DANMIL filter products can be used are: compressed air at point of use, bottle rinsing, wort aeration, storage tank venting, steam and CO<sub>2</sub> filtration. We offer a complete range of filtration products that can be used also for housings and plug & play filter plant skids.



**BREW SHINE PP**

**BREW FREE C**

**BREW FREE PES**

FILTRATION

CORE

FILTER ELEMENTS

# FILTER HOUSINGS FLM & FHC

FILTRATION

MADE BY



The housings represent a combination of plants, equipment and accessories for housing and commissioning the different ranges of cartridges and lenticular modules. The materials are all certified and in accordance to an utilization in complete safety.

CORE

MODEL	NUMBER OF MODULES/CARTRIDGES PER HOUSING	CARTRIDGE HEIGHT RANGE
FLM (for lenticular modules)	From 1 to 4	From 12" to 16"
FHC (for filter cartridges)	From 1 to 30	From 10" to 40"

FILTER HOUSINGS



HOUSING FLM

HOUSING FHC



# ANTIOXIN SB

FILTRATION

APPEARANCE  
Powder

FEATURES



A stabilizer specifically created by AEB to protect beer from oxidation. The best possible protection against oxygen which enables to extend the beer Flavor stability, therefore the shelf life of the beer product.

CORE

RECOMMENDED DOSAGE	2-4 G/hL ADDED DURING MATURATION, PRIOR TO BOTTLING OR AT THE END OF THE FILTRATION.
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT.

# TAN WBT

POST-FILTRATION

APPEARANCE  
Powder

FEATURES



TAN WBT is a selected tannin, designed to maintain and stabilize haze in all beer styles that require it for authenticity. Exclusively composed of a natural tannin, this technological auxiliary is added between maturation and bottling. TAN WBT provides beer the appropriate polyphenol balance, without adding bitterness or astringency.

RECOMMENDED DOSAGE	2-15 G/hL OF BEER BEFORE PACKAGING.
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT.

## FILTRATION AIDS

# FIBROXCEL 10 AND 30

FILTRATION

APPEARANCE  
Powder

Chemically inert filter aids used during beer filtration for pre-coating. The product is a uniform blend of perlites and cellulose, which forms a honeycomb structure that remains in place throughout filtration. These filter aids have a high adsorption capacity throughout the entire filtration cycles.

INDUSTRIAL

RECOMMENDED DOSAGE

**FIBROXCEL 10:** 500-1000 G/M<sup>2</sup> IN PRECOATING FORMATION;  
50-500 G/hL OF BEER DURING FILTRATION IN CONTINUOUS FLOW.  
**FIBROXCEL 30:** 800-1000 G/M<sup>2</sup> IN PRECOATING FORMATION;  
10-20 G/hL OF BEER DURING FILTRATION IN CONTINUOUS FLOW.

STORAGE

STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND  
ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT.

# FIBROXCEL UNI

FILTRATION AIDS

APPEARANCE  
Powder

Single pre-coat for the reduction of total filter aid volume required for pre-coating, in terms of g/hL dosage up to 30% can be achieved. It reduces the time for preparing and cleaning of the filter by 50%. Quality is improved during filtration thanks to the cellulose compound. Longer filtration runs thanks to larger admissible volume capacity.

RECOMMENDED DOSAGE

700-1000 G/M<sup>2</sup> PRECOATING FORMATION

STORAGE

STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND  
ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT.



# SILITE

FILTRATION

APPEARANCE  
Powder

Silite range are chemically inert filter aids. In continuous dosing filtration, filter aids are used for delaying the clogging of the filtering layer, forming a porous structure which remains stable throughout the entire filtration period. Filter aids deeply blend with particles building turbid matter and make the coat uncompressible.

**Silite Mini Speed** is a very fine perlite, with low flow-speed used for tight filtrations, especially the polishing ones.

**Silite Normal Speed** has a medium permeability, it is recommended for all uncomplicated filtrations. It is used for normal filtrations.

**Silite High Speed** is characterized by a high permeability, ideal for very hazy liquids with high content of suspended solids. It is classified as a perlite for coarse filtrations.

INDUSTRIAL

RECOMMENDED DOSAGE	10-100 G/HL IN CONTINUOUS FLOW.
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT.

# SPINDACEL N, R, XX

APPEARANCE  
Powder

Spindacel range are obtained by blending perlites of various granulometries and porosities with special celluloses. Spindacel are characterized by an apparent specific weight, which makes their use 20-30% less than that of traditional diatomaceous earths. Spindacel are completely diatom-free and therefore completely safe with regard to health.

**Spindacel N** is used for tight filtrations.

**Spindacel R** is used for normal filtrations.

**Spindacel XX** is used for coarse filtrations.

RECOMMENDED DOSAGE	10-100 G/HL IN CONTINUOUS FLOW.
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT.

FILTRATION AIDS

## FILTRATION AIDS

# SPINDALITE N, R, XX

FILTRATION

APPEARANCE  
Powder

Spindalite range is composed by specific granulometry of kieselguhr. These aids are chemically inert and filter by adsorption and screen ways. Spindalite aids to reach a very low turbidity and consequently a very bright and crystal beer.

**Spindalite N** is used for tight filtrations.  
**Spindalite R** is used for normal filtrations.  
**Spindalite XX** is used for coarse filtrations.

INDUSTRIAL

RECOMMENDED DOSAGE

10-100 G/hL IN CONTINUOUS FLOW.

STORAGE

STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT.

## POST-FILTRATION

# ARABINOL<sup>®</sup> SB5

FILTRATION AIDS & POST-FILTRATION

APPEARANCE  
Powder

FEATURES



Arabinol SB5 is a naturally occurring polysaccharide, consisting of arabans, galactans and uronic acid complexes, in association with polypropylene glycol alginate, which is used as a hydrophilic colloid for beer head retention.

RECOMMENDED DOSAGE

1-7 G/hL OF FILTERED OR STORED BEER

STORAGE

STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT.

# ARABINOL® MULTINSTANT SB

FILTRATION

APPEARANCE  
Powder

FEATURES



It is a natural polysaccharide used to stabilize head retention and promote beer mouthfeel. Its performance is superior to other aids based on liquid arabic gum. Once dissolved in water, the solution can be added to beer before bottling.

SPECIFIC NEEDS

RECOMMENDED DOSAGE	1-7 G/HL OF FILTERED OR STORED BEER
STORAGE	STORE IN THE SEALED CONTAINER, IN A CLEAN, DRY AND ODORLESS PLACE, AWAY FROM DIRECT LIGHT AND HEAT.



POST-FILTRATION



# DETERGENTS

ALCALINE, CHLORINATED, ACID, ENZYMATIC AND FOAM DETERGENTS TO ENSURE A PERFECT SANITATION OF THE BREWERY. PLUS A COMPLETE LINE OF LUBRICANTS TO OPERATE IN TOTAL SAFETY OBTAINING THE BEST PERFORMANCE.

Please note: the recommended dosage may vary depending on the processing conditions selected by the brewer. The format is varied depending on the country of origin. For exact amounts & formats please contact our technical commercial experts or your branch of reference.

# REMOVIL LIQUID

APPEARANCE  
Liquid

High causticity alkaline detergent suitable for the cleaning of brewhouses, heat exchangers, pipes, fermentation tanks and filling devices.

## TECHNICAL CHARACTERISTICS

PHYSICAL APPEARANCE	LIGHT BROWN LIQUID
pH (1% SOLUTION)	>12
RELATIVE DENSITY AT 20°C	1.50 ± 0.05
USE TEMPERATURE	20-80°C
SUGGESTED CONCENTRATION	1-3%

# X5S/S

APPEARANCE  
Liquid

Alkaline monophase detergent, characterized by high sequestering action, able to easily remove both organic and inorganic contamination from surfaces. The formulation of this product enables to postpone over time the acid descaling also in case of very hard water, saving time and costs of the cleaning procedures.

Suitable for monophase cleaning of brewhouses, heat exchangers, pipes, fermentation tanks and filling devices, moreover for periodic strong cleaning operation of fermentation tanks and BBT.

## TECHNICAL CHARACTERISTICS

PHYSICAL APPEARANCE	COLORLESS CLEAR LIQUID
pH (3% SOLUTION)	>12
RELATIVE DENSITY AT 20°C	1.30 ± 0.05
USE TEMPERATURE	50-80°C
SUGGESTED CONCENTRATION	1-3%

# NERLIK LIQUID

DETERGENTS

APPEARANCE

Liquid

Alkaline detergent for bottle washing and stainless steel kegs. Thank to its high sequestering action it is effective also with very hard water.

TECHNICAL CHARACTERISTICS

PHYSICAL APPEARANCE	BEIGE LIQUID
pH (1% SOLUTION)	12.5 ± 0.5
RELATIVE DENSITY AT 20°C	1.50 ± 0.05
USE TEMPERATURE	50-80°C
SUGGESTED CONCENTRATION	0.8-3%

CORE

# MEMBRAN UF

APPEARANCE

Liquid

Membran UF is a medium alkaline detergent with high sequestering action, suitable for monophasic cleaning of filtration cartridges.

TECHNICAL CHARACTERISTICS

PHYSICAL APPEARANCE	LIGHT YELLOW CLEAR LIQUID
pH (1% SOLUTION)	12.0 ± 0.5
RELATIVE DENSITY AT 20°C	1.25 ± 0.05
USE TEMPERATURE	50-60°C
SUGGESTED CONCENTRATION	0.5-1.5%

ALKALINE AND CHLORINATED DETERGENTS

## ALKALINE AND CHLORINATED DETERGENTS

# IDROSAN

DETERGENTS

APPEARANCE  
Liquid

Alkaline chlorinated detergent with bleaching properties, suitable for detergents of BBT, pipes and filling devices.

### TECHNICAL CHARACTERISTICS

PHYSICAL APPEARANCE	LIGHT YELLOW CLEAR LIQUID
pH (1% SOLUTION)	12.0 ± 0.5
RELATIVE DENSITY AT 20°C	1.20 ± 0.05
USE TEMPERATURE	40-60°C
SUGGESTED CONCENTRATION	1-3%

CORE

## ACID DETERGENTS

# CELON SPECIAL

ALKALINE AND CHLORINATED DETERGENTS & ACID DETERGENTS

APPEARANCE  
Liquid

Descaling detergent based on nitric and phosphoric acid to remove inorganic scales from surfaces. It also acts as a passivating agent towards stainless steel surfaces and it is suitable to dissolve "beerstone" (calcium oxalate). Celon Special is low foaming therefore it is ideal to be used for CIP applications.

### TECHNICAL CHARACTERISTICS

PHYSICAL APPEARANCE	LIGHT GREEN CLEAR LIQUID
pH (1% SOLUTION)	2.0 ± 0.5
RELATIVE DENSITY AT 20°C	1.20 ± 0.05
USE TEMPERATURE	20-70°C
SUGGESTED CONCENTRATION	0.8-5%



# ADDING OX

## APPEARANCE

Liquid

Liquid additive for alkaline cleaning solutions. Adding OX, when added into alkaline washing solutions, improves the cleaning effectiveness of the solution.

## TECHNICAL CHARACTERISTICS

PHYSICAL APPEARANCE	COLORLESS CLEAR LIQUID
pH (0,5% SOLUTION)	7.0 ± 0.5
RELATIVE DENSITY AT 20°C	1.20 ± 0.05
USE TEMPERATURE	>60°C
SUGGESTED CONCENTRATION	0.2-0.5% IN ALKALINE SOLUTIONS

DETERGENTS

CORE

# ADIX LIQUID

## APPEARANCE

Liquid

Liquid additive for bottle washing and CIP applications. It prevents inorganic scales and foaming of alkaline solutions also when contaminated by organic contaminations.

## TECHNICAL CHARACTERISTICS

PHYSICAL APPEARANCE	AMBER CLEAR LIQUID
pH (6% SOLUTION)	6.50 ± 0.5
RELATIVE DENSITY AT 20°C	1.05 ± 0.05
USE TEMPERATURE	>50°C
SUGGESTED CONCENTRATION	2-6% OF NAOH IN CAUSTIC SOLUTIONS

ADDITIVES

## ENZYMATIC DETERGENTS

DETERGENTS

# REMOVIL ZYME

APPEARANCE  
Powder

Removil Zyme is an enzymatic detergent in powder, suitable for cleaning of devices from both brewhouse and cellar. It's able to remove organic scales in general and of the most tenacious components of protein, starch and cellulose. Removil Zyme can be used both for extraordinary washing operations aimed at recovering the optimal cleaning levels and for routine treatments.

CORE

### TECHNICAL CHARACTERISTICS

PHYSICAL APPEARANCE	WHITE AND GREY GRANULAR POWDER
pH (1% SOLUTION)	11.5 ± 0.5
RELATIVE DENSITY AT 20°C	1.01 ± 0.05
USE TEMPERATURE	30-50°C
SUGGESTED CONCENTRATION	0.1-1.5%

## FOAM DETERGENTS

# SANIFOAM

ENZYMATIC DETERGENTS & FOAM DETERGENTS

APPEARANCE  
Liquid

Sanifoam is a chlorinated alkaline foaming detergent to be used for the daily cleaning of surfaces, it is able to effectively remove different kinds of organic contamination. Excellent clinging power and rinsability make this product a very useful detergent. Sanifoam can be applied with a wide range of equipment (Easyfoam P, Combifoam, Foamlance, centralized foam devices, etc.).

### TECHNICAL CHARACTERISTICS

PHYSICAL APPEARANCE	YELLOW CLEAR LIQUID
pH (1% SOLUTION)	11.5 ± 0.5
RELATIVE DENSITY AT 20°C	1.20 ± 0.05
USE TEMPERATURE	ROOM TEMPERATURE
SUGGESTED CONCENTRATION	3-6%

# MONOFOAM

## APPEARANCE

Liquid

Monofoam is an alkaline monofase foaming detergent to be used for the daily cleaning of surfaces, it is able to effectively remove different kinds of tenaceous organic contamination. The formulation of this product enables to postpone over time the acid descaling also with very hard water, saving time and costs of cleaning procedures. Monofoam can be applied with a wide range of equipment (Easyfoam P, Combifoam, Foamlance, centralized foam devices, etc).

## TECHNICAL CHARACTERISTICS

PHYSICAL APPEARANCE	COLORLESS CLEAR LIQUID
pH (1% SOLUTION)	12.0 ± 0.5
RELATIVE DENSITY AT 20°C	1.20 ± 0.05
USE TEMPERATURE	ROOM TEMPERATURE
SUGGESTED CONCENTRATION	3-6%

DETERGENTS

CORE

# CELOFOAM

## APPEARANCE

Liquid

Celofoam is an acid foaming detergent based on phosphoric acid to be used for the routineer descaling of surfaces. Excellent clinging power and rinsability make this product a very useful detergent. Celofoam can be applied with a wide range of supply equipment (Easyfoam P, Combifoam, Foamlance, centralized foam devices, etc.). Celofoam is compatible with most material normally present in food industries, if used according to the producer's indications.

## TECHNICAL CHARACTERISTICS

PHYSICAL APPEARANCE	OLIVE GREEN CLEAR LIQUID
pH (6% SOLUTION)	2.0 ± 0.5
RELATIVE DENSITY AT 20°C	1.35 ± 0.05
USE TEMPERATURE	ROOM TEMPERATURE
SUGGESTED CONCENTRATION	3-6%

FOAM DETERGENTS

# CELOFOAM SF

DETERGENTS

APPEARANCE  
Liquid

Celofoam SF is an acid foaming detergent, able to effectively remove any kind of inorganic contamination, to be used for the routinary descaling of surfaces. Excellent clinging power and rinsability make this product a very effective detergent. Celofoam SF can be applied with a wide range of supply equipment (Easyfoam P, Combifoam, Foamlance, centralized foam devices, etc.). Celofoam SF is compatible with most material normally present in food industries, if used according to the producer's indications.

CORE

## TECHNICAL CHARACTERISTICS

PHYSICAL APPEARANCE	COLORLESS CLEAR LIQUID
pH (6% SOLUTION)	<2
RELATIVE DENSITY AT 20°C	1.15 ± 0.05
USE TEMPERATURE	ROOM TEMPERATURE
SUGGESTED CONCENTRATION	2-6%

FOAM DETERGENTS

## LUBRICANTS

# SINTODRY

### APPEARANCE

Liquid

Sintodry is a liquid lubricant for dry lubrication of conveyors for bottles and cans, to be used on plastic chains.

### TECHNICAL CHARACTERISTICS

PHYSICAL APPEARANCE	WHITE LIQUID
pH (1% SOLUTION)	5.0 ± 0.5
RELATIVE DENSITY AT 20°C	1.00 ± 0.05
USE TEMPERATURE	ROOM TEMPERATURE
SUGGESTED CONCENTRATION	READY TO USE

DETERGENTS

INDUSTRIAL

## HYGIENIZERS

# PERCISAN

### APPEARANCE

Liquid

Percisan is a wide spectrum sanitizer based on peroxides. Suitable for CIP detergents of fermentation tanks, heat exchangers, pipes, filtration cartridges and filling devices.

### TECHNICAL CHARACTERISTICS

PHYSICAL APPEARANCE	COLORLESS CLEAR LIQUID
pH (1% SOLUTION)	2.95 ± 0.03
RELATIVE DENSITY AT 20°C	1.15 ± 0.05
USE TEMPERATURE	ROOM TEMPERATURE
SUGGESTED CONCENTRATION	0.8-1%

LUBRICANTS & HYGIENIZERS

## HYGIENIZERS

DETERGENTS

# PERACID

APPEARANCE  
Liquid

Peracid is a wide spectrum sanitizer based on Peracetic Acid. Suitable for CIP detergents of fermentation tanks, heat exchangers, pipes, filtration cartridges and filling devices.

INDUSTRIAL

### TECHNICAL CHARACTERISTICS

PHYSICAL APPEARANCE	COLORLESS CLEAR LIQUID
pH (1% SOLUTION)	3.0 ± 4.0
RELATIVE DENSITY AT 20°C	1.12 ± 0.05
USE TEMPERATURE	ROOM TEMPERATURE
SUGGESTED CONCENTRATION	0.2 - 1%

# X ACID LY

HYGIENIZERS

APPEARANCE  
Liquid

Broad-spectrum disinfectant composed of Peracetic Acid (5%) and hydrogen peroxide. Used for the disinfection of all installations.

### TECHNICAL CHARACTERISTICS

PHYSICAL APPEARANCE	COLORLESS CLEAR LIQUID
pH (1% SOLUTION)	3.0 ± 0.5
RELATIVE DENSITY AT 20°C	1.11 ± 0.05
USE TEMPERATURE	ROOM TEMPERATURE
SUGGESTED CONCENTRATION	0.2 - 1%

# EQUIPMENT

FROM THE WASHING TO THE FOAMING EQUIPMENT UP TO THE DOSING, THE YEAST REHYDRATION AND THE LUBRICATION TECHNOLOGIES, WITHOUT FORGETTING THE FILTRATION HOUSINGS AND THE FILTER ELEMENTS: WHATEVER YOUR NEED IS, WE HAVE THE RIGHT SOLUTION.

# CIP MIXER INOX 1000

MADE BY



EQUIPMENT

The CIP MIXER INOX 1000 is an equipment that allows to prepare solutions in variable percentages and to set up washing cycles that follow each other rinsing in a totally automatic way. The great advantage of this equipment is its autonomy: up to 30 washing recipes can be saved, so it will be possible for the operator to move between the tanks and once the pipes are connected, start the inherent recipe and then return to washing completed.

Through the pH meter it is possible to check the pH measured by the electrode on the discharge of the rinses. Moreover, by accessing the page for traceability, it's possible to keep note of: recipe used, date and time of washing, operator, possible notes. The history of all washes can be downloaded and archived.



MODEL	WASHING PUMP
CIP MIXER INOX 10-1000	10 Hp
CIP MIXER INOX 5.5-1000	5.5 Hp

# MULTIFOAM INOX

MADE BY



CORE

MULTIFOAM INOX is a low-pressure foaming nebulizer, used for multiple cleaning applications, in particular for: cleaning with foam detergents, cleaning with nebulization of traditional detergents and environmental hygiene with nebulization of sanitizers. The equipment is available in stainless steel 18/8 AISI 304.



MODEL	TANK CAPACITY
MULTIFOAM INOX 24 LT	24 LT
MULTIFOAM INOX 50 LT	50 LT



# EASYFOAM

MADE BY



EASYFOAM is a patented system for the supply of foam detergents with compressed air. All models have a compact size but provide high performances and are ideal for cleaning vertical surfaces and ceilings. Thanks to the total absence of vaporization, they are suitable to be used in complete safety with very high alkalinity foam detergents.

EASYFOAM MIX and EASYFOAM MIX WITH WHEELS enable to supply at the same time also an additive with sanitizing action.

EASYFOAM PRESSURE is a foaming system able to feed itself at the correct pressure regardless of the type of water network in the plant.

All EASYFOAM models are available:

- with connection pipe with a length of 15 or 20 metres;
- with wheels.

MODEL	SUPPLIED PRODUCT/S
EASYFOAM P 15 MT	Foam detergent
EASYFOAM P 20 MT	Foam detergent
EASYFOAM MIX P 15 MT	Foam detergent + additive
EASYFOAM MIX P 20 MT	Foam detergent + additive
EASYFOAM PRESSURE 15 MT	Foam detergent
EASYFOAM PRESSURE 20 MT	Foam detergent

EQUIPMENT



CORE

EASYFOAM P

EASYFOAM MIX

EASYFOAM PRESSURE

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# LUBIMATIC CONTROL DRY

MADE BY



The LUBIMATIC CONTROL DRY range includes 2 models, each consisting of a central plant for the automatic supply of dry lubricants with programmable timed system. The control unit has to be coupled to dripless pneumatic lubrication nozzles, able to ensure the nebulization of the product on the entire surface of the conveyor belt. The system is able to handle up to 80 nozzles.



MODEL	MANAGEABLE SYSTEMS
LUBIMATIC CONTROL DRY ECO	Small-sized system
LUBIMATIC CONTROL DRY 5 ZONES	Large-sized system

# DOSAPROP

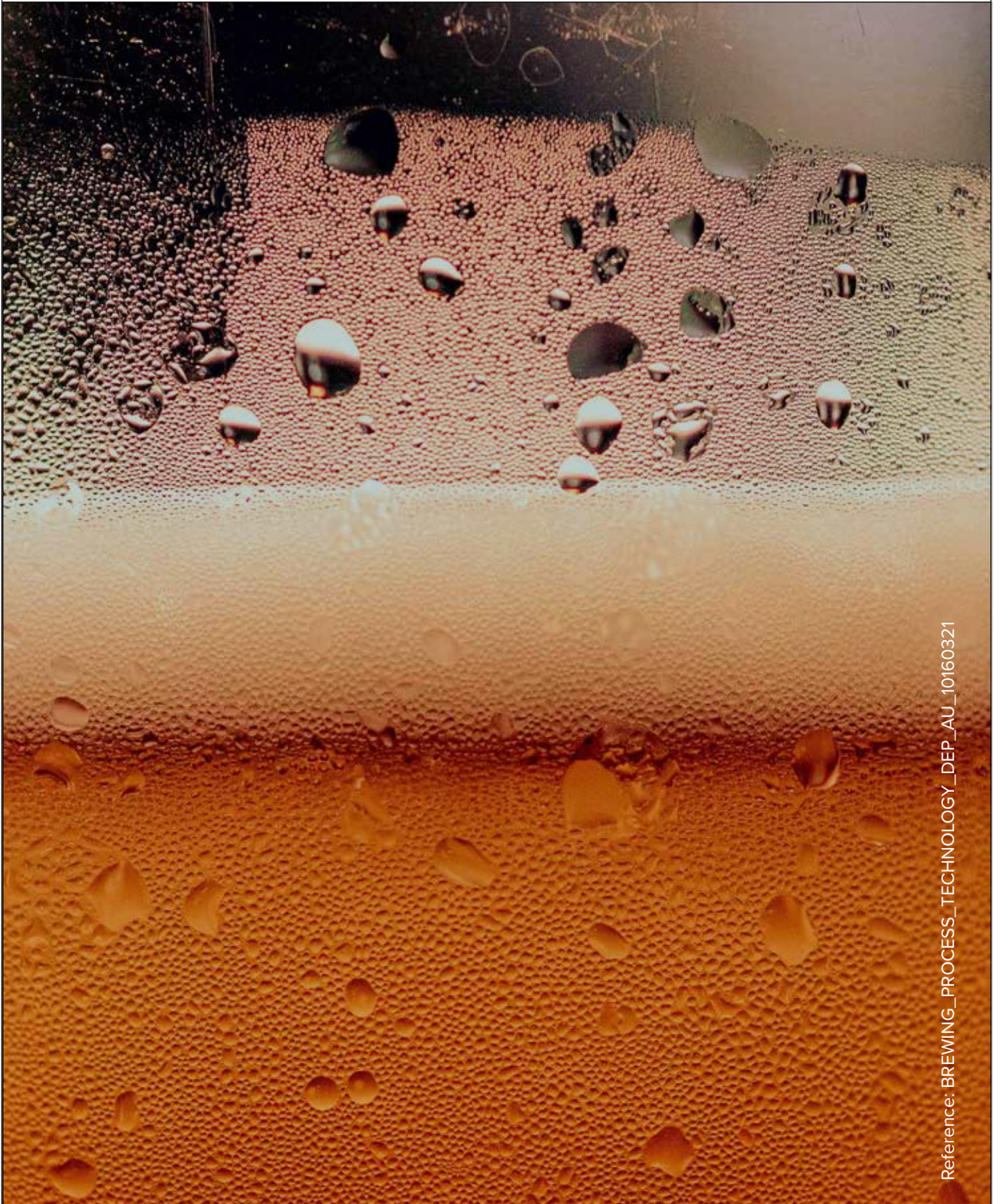
MADE BY



Dosaprop is a doser ensuring additions of liquid products proportionally to the flow and it provides a perfect homogenization. Its operation is based on a sensor detecting the quantity of liquid flowing inside the pipe, by sending to the dosing system the impulse for the addition. The product quantity is easily manageable thanks to a micro-push button. Dosaprop is resizable to satisfy plants with hourly flow from 6 to 60 hL/h and from 100 to 1200 hL/hour. The dosage of agents can be supplied from a maximum of 3 pumps and is dimensioned from 1 to 730 L/hour.







Reference: BREWING\_PROCESS\_TECHNOLOGY\_DEP\_AU\_10160321