### **Technical Data Sheet**

## CBC-1 CASK & BOTTLE CONDITIONING YEAST



PREMIUM SERIES

YEAST FOR **CASK & BOTTLE** CONDITIONING

## MICROBIOLOGICAL PROPERTIES

Classified as Saccharomyces cerevisiae, a top fermenting yeast.

Typical Analysis of CBC-1 yeast:

LALLEMAN

Percent solids	93% - 97%
Viability	$\geq$ 5 x 10 <sup>9</sup> CFU per gram of dry yeast
Wild Yeast	< 1 per 10 <sup>6</sup> yeast cells
Diastaticus	Undetectible
Bacteria	< 1 per 10 <sup>6</sup> yeast cells

Finished product is released to the market only after passing a rigorous series of tests \*See specifications sheet for details

CBC-1 is a killer yeast, meaning it will secrete a toxic protein that can inhibit killer sensitive strains (most brewing strains are killer sensitive). While this is a positive yeast trait when conducting a pure fermentation/refermentation with CBC-1, extra care should be taken to ensure proper cleaning procedures are in place to avoid any cross-contamination with other brews.

## BREWING PROPERTIES

#### **PRIMARY FERMENTATION**

In Lallemand's Standard Conditions Wort at 20°C (68°F) CBC-1 yeast exhibits:

Vigorous fermentation that can be completed in 3 days

Neutral aroma and flavor

CBC-1 does not utilize the sugar maltotriose (a molecule composed of 3 glucose units), and the result will be fuller body and residual sweetness in the beer. Adjust mash temperatures accordingly to achieve desired results.

The optimal temperature for primary fermentation with CBC-1 yeast when producing traditional styles is 20°C(72°F).

#### **BOTTLE CONDITIONING**

Best results are achieved when priming the beer with simple sugars such as dextrose. Calculate the appropriate priming rate using the **Bottle Conditioning** Calculator\*.

Refermentation can be completed in 2 weeks at the recommended temperatures.

The optimal refermentation temperature range for CBC-1 yeast is 15-25°C (59-77°F).

CBC-1 contains an adequate reserve of carbohydrates and unsaturated fatty acids, and cell division (typically one division) is likely to occur in the bottle.

\* www.lallemandbrewina.com/en/canada/brewers-corner/brewina-tools/bottle-conditionina-calculator/

TECH DATA SHEET



**CBC-1** 

CBC-1 has been specifically selected from the Lallemand Yeast Culture Collection for its refermentation properties and is recommended for Cask and Bottle Conditioning. CBC-1 referments beer efficiently due to its high resistance to alcohol and pressure. The flavor is neutral, therefore the original character of the beer is preserved. The yeast will settle and form a tight mat at the end of refermentation. CBC-1 can be used for primary fermentation of dry ciders or mead. Maltotriose is not metabolized during primary fermentation of beer, so CBC-1 is well suited for sweeter fruit beers or fullbodied, malty ales.

## **OUICK FACTS**

#### BEER STYLES

- primary fermentation of fruit beers, full-bodied, malty beers, dry cider and mead
- bottle conditioning for all beer styles.

#### FERMENTATION RANGE

primary: 20°C refermentation: 15-25°C

#### ALCOHOL TOLERANCE

18% ABV for primary fermentation 12-14% ABV for referementation

#### PITCHING RATE

primary: 50-100g/hL bottle conditioning: 10g/hL





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## USAGE

The pitch rate will affect the fermentation performance and flavor of the beer. For primary fermentation with CBC-1 yeast, a pitch rate of 50 – 100g/hL of wort is sufficient to achieve optimal results for most fermentations. For bottle conditioning, a pitch rate of 10g/hL is recommended. More stressful fermentations such as high gravity, high adjunct or high acidity may require higher pitch rates and additional nutrients to ensure a healthy fermentation.

## Find your exact recommended pitching rate for primary fermentations with our *Pitch Rate Calculator*\*.

When using CBC-1 for primary fermentation, you may re-pitch the yeast just as you would any other type of yeast according to your brewery's SOP for yeast handling. Wort aeration is required when re-pitching dry yeast.

## STORAGE

CBC-1 yeast should be stored in a vacuum sealed package in dry conditions below 4C° (39°F). CBC-1 will rapidly lose activity after exposure to air.

Do not use 500g or 11g packs that have lost vacuum. Opened packs must be re-sealed, stored in dry conditions below  $4^{\circ}$ C (39°F), and used within 3 days. If the opened package is re-sealed under vacuum immediately after opening, yeast can be stored below  $4^{\circ}$ C (39°F) until the indicated expiry date.

Do not use yeast after expiry date printed on the pack.

Performance is guaranteed when stored correctly and before the expiry date. However, Lallemand dry brewing yeast is very robust and some strains can tolerate brief periods under sub-optimal conditions.

If you have questions, do not hesitate to contact us. We have a team of technical representatives happy to help and guide you in your fermentation journey.

## REHYDRATION

Rehydration of CBC-1 in sterile water is recommended prior to pitching into wort or primed beer in order to reduce stress on the cell as it transitions from dry to liquid form. For many fermentations, this stress is not significant enough to affect fermentation performance and flavor, so good results may also be achieved when pitching dry yeast directly into wort. We highly recommend rehydration of CBC-1 prior to bottle conditioning and for primary fermentation in harsher conditions such as high gravity or sour wort where the added stress of dry-pitching is more likely to have a greater impact on the finished beer. Use of a rehydration nutrient such as Go-Ferm Protect Evolution has been shown to improve fermentation performance for difficult fermentations.

Rehydration guidelines are quite simple and present a much lower risk of contamination than a starter, which is unnecessary when using the recommended pitch rate of dried active yeast.

Sprinkle the yeast on the surface of 10 times its weight in clean, sterilized water at 30-35°C (86-95F). Do not use wort, or distilled or reverse osmosis water, as loss in viability may result. **Stir gently**, leave undisturbed for 15 minutes, then stir to suspend yeast completely. Leave it to rest for 5 more minutes at 30-35°C.

Without delay, adjust the temperature to that of the wort by mixing aliquots of wort or primed beer with the rehydrated yeast. Wort should be added in 5 minute intervals and taking care not to lower the temperature by more than 10°C at a time. Temperature shock of >10°C will cause formation of petite mutants leading to extended or incomplete fermentation and possible formation of undesirable flavors. Do not allow attemperation to be carried out by natural heat loss. This will take too long and could result in loss of viability or vitality.

**Primary fermentation:** Inoculate rehydrated yeast without delay into cooled wort in the fermenter. CBC-1 yeast has been conditioned to survive rehydration. The yeast contains an adequate reserve of carbohydrates and unsaturated fatty acids to achieve active growth. It is unnecessary to aerate wort upon first use.

**Bottle conditioning:** Inoculate rehydrated yeast without delay into beer that has been primed with sugar, then proceed with bottling immediately.

\* www.lallemandbrewing.com/en/canada/brewers-corner/brewing-tools/pitching-rate-calculator/

#### CONTACT US

For more information, please visit us online at **www.lallemandbrewing.com** 

For any questions, you can also reach us via email at brewing@lallemand.com

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