



## Technical Data Sheet

# WINDSOR

## BRITISH-STYLE BEER YEAST

LalBrew Windsor™ is a true English ale strain that produces a balanced fruity aroma with lower attenuation due to an inability to metabolize maltotriose. LalBrew Windsor™ is one of the original Heritage Strains selected from the Lallemand Yeast Culture Collection when Lallemand Brewing was founded in 1992. Beers created with LalBrew Windsor™ are usually described as full-bodied, fruity English ales. LalBrew Windsor™ is a consistent and robust strain that produces moderate levels of alcohol and the balanced flavor and aroma characteristics of the best traditional English ales. Traditional styles brewed with this yeast include but are not limited to Milds, Bitters, Irish Reds, English Brown ales, Porters and Sweet Stouts.



### MICROBIOLOGICAL PROPERTIES

Classified as *Saccharomyces cerevisiae*, a top fermenting yeast.

Typical Analysis of LalBrew Windsor™ yeast:

<b>Percent solids</b>	93% - 97%
<b>Viability</b>	≥ 5 x 10 <sup>9</sup> CFU per gram of dry yeast
<b>Wild Yeast</b>	< 1 per 10 <sup>6</sup> yeast cells
<b>Wild Yeast Media</b>	This strain is known to grow on some wild yeast media including LWYM and LCSM.
<b>Diastaticus</b>	Negative
<b>Bacteria</b>	< 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



### BREWING PROPERTIES

In Lallemand's Standard Conditions Wort at 20°C (68°F) LalBrew Windsor™ yeast exhibits:

Vigorous fermentation that can be completed in 3 days.

Medium attenuation and Low flocculation.

Fruity and estery flavor and aroma, typical of traditional English style ales.

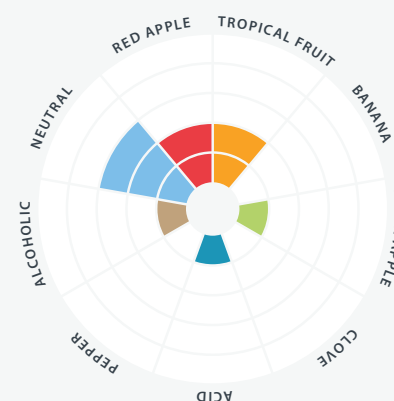
The optimal temperature range for LalBrew Windsor™ yeast when producing traditional styles is 15 - 25°C (59 - 77°F).

LalBrew Windsor™ does not utilize the sugar maltotriose (a molecule composed of 3 glucose units). Maltotriose comprises an average of 10-15% of total sugar in all-malt worts. The result will be fuller body and residual sweetness in the beer. Be advised to adjust mash temperatures according to desired result.

Lag phase, total fermentation time, attenuation and flavor are dependent on pitch rate, yeast handling, fermentation temperature and nutritional quality of the wort. *If you have questions please do not hesitate to contact us at [brewing@lallemand.com](mailto:brewing@lallemand.com)*



### FLAVOR & AROMA



### QUICK FACTS

#### BEER STYLES

Fruity English ales, pale ales, porters

#### AROMA

Fruity, estery

#### ATTENUATION RANGE

65 - 72 %

#### TEMPERATURE RANGE

15 - 25°C (59 - 77°F)

#### FLOCCULATION

Low

#### ALCOHOL TOLERANCE

12% ABV

#### PITCHING RATE

50 - 100g/hL



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## USAGE

The pitch rate will affect the fermentation performance and flavor of the beer. For LalBrew Windsor™ yeast, a pitch rate of 50 - 100g per hL of wort is sufficient to achieve optimal results for most fermentations. 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.

LalBrew Windsor™ may be re-pitched 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

LalBrew Windsor™ yeast should be stored in a vacuum sealed package in dry conditions below 4°C (39°F). LalBrew Windsor™ 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°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°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, Lallemmand dry brewing yeast is very robust and some strains can tolerate brief periods under sub-optimal conditions.



## DRY PITCHING

Dry pitching is the preferred method of inoculating wort. This method is simpler than rehydration and will give more consistent fermentation performance and reduce the risk of contamination. Simply sprinkle the yeast evenly on the surface of the wort in the fermenter as it is being filled. The motion of the wort filling the fermenter will aid in mixing the yeast into the wort.

For LalBrew Windsor™ there are no significant differences in fermentation performance when dry pitching compared to rehydration.



## REHYDRATION

Rehydration of yeast prior to pitching should be used only when equipment does not easily facilitate dry pitching. Significant deviations from rehydration protocols can result in longer fermentations, under-attenuation and increased risk of contamination. Rehydration procedures can be found on our website.

Measure the yeast by weight within the recommended pitch rate range. Pitch rate calculators optimized for liquid yeast may result in significant overpitching.



### BREWERS CORNER

For more information on our yeasts including:

- › Technical Documents
- › Best Practices Documents
- › Recipes
- › Pitch Rate Calculator and other brewing tools

Scan this QR code to visit the Brewers Corner on our website.

### CONTACT US

If you have questions, do not hesitate to contact us at [brewing@lallemand.com](mailto:brewing@lallemand.com). We have a team of technical representatives happy to help and guide you in your fermentation journey.

[www.lallemandbrewing.com](http://www.lallemandbrewing.com)  
[brewing@lallemand.com](mailto:brewing@lallemand.com)