

# Christmas ALE HB

- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **21**
- SRM **30.2**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **2.7 liter(s) / kg**
- Mash size **17.3 liter(s)**
- Total mash volume **23.7 liter(s)**

## Steps

- Temp **65 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **2 min**

## Mash step by step

- Heat up **17.3 liter(s)** of strike water to **73.3C**
- Add grains
- Keep mash **30 min** at **65C**
- Keep mash **30 min** at **72C**
- Keep mash **2 min** at **76C**
- Sparge using **14.4 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount         | Yield | EBC  |
|-------|-----------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt        | 5 kg (78.1%)   | 80 %  | 5    |
| Grain | Viking Munich Malt          | 0.5 kg (7.8%)  | 78 %  | 18   |
| Grain | Jęczmień niesłodowany       | 0.4 kg (6.3%)  | 75 %  | 2    |
| Grain | Strzegom Czekoladowy ciemny | 0.25 kg (3.9%) | 68 %  | 1200 |
| Grain | Jęczmień palony             | 0.25 kg (3.9%) | 55 %  | 985  |

## Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil                | Sybilla | 50 g   | 55 min | 3.5 %      |
| Aroma (end of boil) | Oktawia | 30 g   | 5 min  | 7.1 %      |

## Yeasts

| Name              | Type | Form | Amount | Laboratory |
|-------------------|------|------|--------|------------|
| lallemand windsor | Ale  | Dry  | 22 g   | ---        |