

# 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	---