

# Christmas Ale

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- Gravity **15.4 BLG**
- ABV **6.5 %**
- IBU **33**
- SRM **16**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.1 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

## Mash information

- Mash efficiency **84 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **18.5 liter(s)**
- Total mash volume **24.6 liter(s)**

## Steps

- Temp **68 C**, Time **50 min**
- Temp **72 C**, Time **10 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **18.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **50 min** at **68C**
- Keep mash **10 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **16.7 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

## Fermentables

| Type  | Name                      | Amount         | Yield | EBC  |
|-------|---------------------------|----------------|-------|------|
| Grain | Weyermann - Pale Ale Malt | 4 kg (65%)     | 85 %  | 7    |
| Grain | Biscuit Malt              | 0.5 kg (8.1%)  | 79 %  | 45   |
| Grain | Abbey Malt Weyermann      | 1 kg (16.3%)   | 75 %  | 45   |
| Grain | Carafa II                 | 0.15 kg (2.4%) | 70 %  | 1100 |
| Grain | Platki owsiane            | 0.5 kg (8.1%)  | 85 %  | ---  |

## Hops

| Use for             | Name     | Amount | Time   | Alpha acid |
|---------------------|----------|--------|--------|------------|
| Boil                | Citra    | 35 g   | 30 min | 12 %       |
| Aroma (end of boil) | Amarillo | 30 g   | 7 min  | 7.1 %      |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11 g   | Fermentis  |

## Extras

| Type  | Name                  | Amount | Use for   | Time     |
|-------|-----------------------|--------|-----------|----------|
| Spice | skórka pomarańczowa   | 20 g   | Boil      | 20 min   |
| Spice | Przyprawa do piernika | 20 g   | Boil      | 20 min   |
| Spice | imbir                 | 10 g   | Boil      | 20 min   |
| Spice | Przyprawa do piernika | 20 g   | Secondary | 3 day(s) |
| Spice | imbir                 | 10 g   | Secondary | 3 day(s) |