

# Christmas 2021

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- Gravity **17.1 BLG**
- ABV **7.3 %**
- IBU **16**
- SRM **29.1**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **24 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.4 liter(s)**
- Boil time **40 min**
- Evaporation rate **10 %/h**
- Boil size **29.7 liter(s)**

## Mash information

- Mash efficiency **72 %**
- Liquor-to-grist ratio **2.2 liter(s) / kg**
- Mash size **20.6 liter(s)**
- Total mash volume **30 liter(s)**

## Steps

- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **76 C**, Time **1 min**

## Mash step by step

- Heat up **20.6 liter(s)** of strike water to **76.5C**
- Add grains
- Keep mash **30 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **18.5 liter(s)** of **76C** water or to achieve **29.7 liter(s)** of wort

## Fermentables

| Type  | Name                      | Amount         | Yield | EBC  |
|-------|---------------------------|----------------|-------|------|
| Grain | golden ale                | 3.5 kg (37.4%) | 70 %  | 12   |
| Grain | Viking Pale Ale malt      | 3 kg (32.1%)   | 80 %  | 5    |
| Grain | Pilzneński                | 1.2 kg (12.8%) | 81 %  | 4    |
| Grain | Płatki owsiane            | 0.6 kg (6.4%)  | 60 %  | 3    |
| Grain | Caraaroma                 | 0.4 kg (4.3%)  | 78 %  | 400  |
| Grain | cookie                    | 0.2 kg (2.1%)  | 70 %  | 50   |
| Grain | Strzegom pszenica prażona | 0.25 kg (2.7%) | 70 %  | 1000 |
| Grain | Carafa II                 | 0.17 kg (1.8%) | 70 %  | 812  |
| Grain | Jęczmień palony           | 0.04 kg (0.4%) | 55 %  | 985  |

## Hops

| Use for | Name    | Amount | Time   | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil    | Marynka | 30 g   | 40 min | 8 %        |

## Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

|                          |     |       |        |            |
|--------------------------|-----|-------|--------|------------|
| WLP530 - Abbey Ale Yeast | Ale | Slant | 500 ml | White Labs |
|--------------------------|-----|-------|--------|------------|

### Extras

| Type  | Name                  | Amount | Use for | Time  |
|-------|-----------------------|--------|---------|-------|
| Spice | przyprawa do piernika | 2 g    | Boil    | 5 min |
| Spice | goździki              | 1 g    | Boil    | 3 min |
| Spice | cynamon               | 5 g    | Boil    | 3 min |
| Spice | gałka muszkatołowa    | 5 g    | Boil    | 3 min |
| Spice | przyprawa do piernika | 3 g    | Boil    | 3 min |