

# Piwo świąteczne - Christmas Ale

- Gravity **19.6 BLG**
- ABV **8.6 %**
- IBU **36**
- SRM **40.9**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **10 %**
- Size with trub loss **13.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **16.6 liter(s)**

## Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **21.8 liter(s)**

## Steps

- Temp **53 C**, Time **15 min**
- Temp **66 C**, Time **50 min**
- Temp **72 C**, Time **20 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **17 liter(s)** of strike water to **57.7C**
- Add grains
- Keep mash **15 min** at **53C**
- Keep mash **50 min** at **66C**
- Keep mash **20 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **4.5 liter(s)** of **76C** water or to achieve **16.6 liter(s)** of wort

## Fermentables

| Type  | Name                       | Amount         | Yield | EBC  |
|-------|----------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt       | 2.5 kg (51.5%) | 80 %  | 5    |
| Grain | Viking Munich Malt         | 1 kg (20.6%)   | 78 %  | 18   |
| Grain | Strzegom Karmel 150        | 0.5 kg (10.3%) | 75 %  | 150  |
| Grain | Strzegom Karmel 30         | 0.25 kg (5.2%) | 75 %  | 30   |
| Grain | Strzegom Czekoladowy jasny | 0.25 kg (5.2%) | 68 %  | 400  |
| Grain | Strzegom Barwiący          | 0.25 kg (5.2%) | 68 %  | 1300 |
| Grain | Strzegom Karmel 300        | 0.1 kg (2.1%)  | 70 %  | 299  |

## Hops

| Use for             | Name    | Amount | Time   | Alpha acid |
|---------------------|---------|--------|--------|------------|
| Boil                | Marynka | 15 g   | 60 min | 10 %       |
| Aroma (end of boil) | Marynka | 20 g   | 20 min | 10 %       |

## Yeasts

| Name                   | Type | Form | Amount | Laboratory |
|------------------------|------|------|--------|------------|
| Fermentis Safale US-05 | Ale  | Dry  | 11.5 g | ---        |

### Extras

| Type   | Name               | Amount | Use for | Time   |
|--------|--------------------|--------|---------|--------|
| Spice  | imbir              | 30 g   | Boil    | 60 min |
| Spice  | cynamon            | 30 g   | Boil    | 10 min |
| Spice  | gałka muszkatołowa | 5 g    | Boil    | 10 min |
| Spice  | anyż               | 7.5 g  | Boil    | 10 min |
| Spice  | goździki           | 5 g    | Boil    | 10 min |
| Spice  | kardamon           | 5 g    | Boil    | 10 min |
| Flavor | miód gryczany      | 350 g  | Boil    | 10 min |
| Fining | mech irlandzki     | 5 g    | Boil    | 15 min |