

# Świąteczne

- Gravity **18.2 BLG**
- ABV **7.8 %**
- IBU **32**
- SRM **31.3**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **10 liter(s)**
- Trub loss **5 %**
- Size with trub loss **10.5 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **12.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **11.4 liter(s)**
- Total mash volume **15.2 liter(s)**

## Steps

- Temp **65 C**, Time **40 min**
- Temp **70 C**, Time **20 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **11.4 liter(s)** of strike water to **72.5C**
- Add grains
- Keep mash **40 min** at **65C**
- Keep mash **20 min** at **70C**
- Keep mash **5 min** at **76C**
- Sparge using **5.1 liter(s)** of **76C** water or to achieve **12.7 liter(s)** of wort

## Fermentables

| Type  | Name                   | Amount         | Yield | EBC  |
|-------|------------------------|----------------|-------|------|
| Grain | Viking Pale Ale malt   | 3 kg (78.9%)   | 80 %  | 5    |
| Grain | Weyermann - Carafa II  | 0.2 kg (5.3%)  | 70 %  | 1150 |
| Grain | Płatki owsiane         | 0.2 kg (5.3%)  | 60 %  | 3    |
| Grain | Viking Malt Karmel 150 | 0.4 kg (10.5%) | 75 %  | 150  |

## Hops

| Use for | Name        | Amount | Time   | Alpha acid |
|---------|-------------|--------|--------|------------|
| Boil    | Magnum PL   | 10 g   | 60 min | 11 %       |
| Boil    | Sybilla PL  | 10 g   | 30 min | 6.9 %      |
| Boil    | Lubelski PL | 10 g   | 10 min | 5 %        |

## Yeasts

| Name        | Type | Form  | Amount | Laboratory |
|-------------|------|-------|--------|------------|
| Safale S-04 | Ale  | Slant | 200 ml | ---        |

## Extras

| Type  | Name             | Amount | Use for | Time   |
|-------|------------------|--------|---------|--------|
| Spice | Goździki         | 10 g   | Boil    | 10 min |
| Spice | Cynamon          | 10 g   | Boil    | 10 min |
| Spice | Imbir            | 10 g   | Boil    | 10 min |
| Spice | Kardamon         | 10 g   | Boil    | 10 min |
| Spice | Ziele Angielskie | 5 g    | Boil    | 10 min |
| Spice | Gałka muszkatowa | 5 g    | Boil    | 10 min |
| Spice | Anyż gwizadki    | 3 g    | Boil    | 10 min |