

# Świąteczne

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **26**
- SRM **10.5**
- 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 **70 min**
- Evaporation rate **10 %/h**
- Boil size **26.8 liter(s)**

## Mash information

- Mash efficiency **90 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **12 liter(s)**
- Total mash volume **16 liter(s)**

## Steps

- Temp **64 C**, Time **60 min**
- Temp **76 C**, Time **5 min**

## Mash step by step

- Heat up **12 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **5 min** at **76C**
- Sparge using **18.8 liter(s)** of **76C** water or to achieve **26.8 liter(s)** of wort

## Fermentables

| Type  | Name                     | Amount         | Yield  | EBC |
|-------|--------------------------|----------------|--------|-----|
| Grain | Viking Pale Ale malt     | 2 kg (50%)     | 80 %   | 5   |
| Grain | Strzegom Pilzneński      | 0.5 kg (12.5%) | 80 %   | 4   |
| Grain | Pszeniczny               | 0.5 kg (12.5%) | 85 %   | 4   |
| Grain | Special B Castle         | 0.1 kg (2.5%)  | 70 %   | 350 |
| Grain | Strzegom Wiedeński       | 0.5 kg (12.5%) | 79 %   | 10  |
| Grain | Viking melanoidynowy     | 0.2 kg (5%)    | 75 %   | 60  |
| Grain | Fawcett - Pale Chocolate | 0.1 kg (2.5%)  | 71 %   | 600 |
| Grain | Acid Malt                | 0.1 kg (2.5%)  | 58.7 % | 6   |

## Hops

| Use for | Name     | Amount | Time   | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil    | Chinook  | 15 g   | 60 min | 13 %       |
| Boil    | Tettnang | 20 g   | 15 min | 4 %        |

## Yeasts

| Name               | Type  | Form   | Amount  | Laboratory       |
|--------------------|-------|--------|---------|------------------|
| FM20 Białe Walonki | Wheat | Liquid | 1000 ml | Fermentum Mobile |

## Extras

| Type        | Name                | Amount | Use for | Time   |
|-------------|---------------------|--------|---------|--------|
| Water Agent | Gips Piwowarski     | 2 g    | Mash    | 60 min |
| Water Agent | Mech irlandzki      | 4 g    | Boil    | 15 min |
| Flavor      | Laktoza             | 250 g  | Boil    | 15 min |
| Flavor      | Suszona śliwka      | 250 g  | Boil    | 15 min |
| Water Agent | Pożywka dla drożdzy | 6 g    | Boil    | 15 min |
| Spice       | Cynamon             | 7 g    | Boil    | 10 min |
| Spice       | Korzeń imbiru       | 13 g   | Boil    | 10 min |
| Spice       | Goździki            | 5 g    | Boil    | 10 min |
| Spice       | Kardamon            | 8 g    | Boil    | 10 min |
| Flavor      | Skórka pomarańczy   | 70 g   | Boil    | 10 min |
| Flavor      | Kolendra            | 8 g    | Boil    | 10 min |
| Flavor      | Werbena Cytrynowa   | 15 g   | Boil    | 10 min |

## Notes

- Kafir 10g do rozlewu  
Pożywka dla drożdzy 6g - rozpuścić w ciepłej wodzie  
kwas mlekowy 5ml - woda do wystudzenia  
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