

## Świąteczne #2

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- Gravity **17.3 BLG**
- ABV **7.4 %**
- IBU **20**
- SRM **12.7**
- Style **Christmas/Winter Specialty Spiced Beer**

### Batch size

- Expected quantity of finished beer **11 liter(s)**
- Trub loss **5 %**
- Size with trub loss **11.6 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **14 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.1 liter(s)**
- Total mash volume **15.5 liter(s)**

### Steps

- Temp **62 C**, Time **25 min**
- Temp **72 C**, Time **35 min**
- Temp **76 C**, Time **1 min**

### Mash step by step

- Heat up **12.1 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **25 min** at **62C**
- Keep mash **35 min** at **72C**
- Keep mash **1 min** at **76C**
- Sparge using **5.4 liter(s)** of **76C** water or to achieve **14 liter(s)** of wort

### Fermentables

| Type  | Name                       | Amount         | Yield | EBC |
|-------|----------------------------|----------------|-------|-----|
| Grain | Pilzneński                 | 2 kg (54.1%)   | 81 %  | 4   |
| Grain | Strzegom Monachijski typ I | 1 kg (27%)     | 79 %  | 16  |
| Grain | Karmelowy Jasny 30EBC      | 0.25 kg (6.8%) | 75 %  | 30  |
| Grain | Strzegom Karmel 150        | 0.15 kg (4.1%) | 75 %  | 150 |
| Grain | Carafa                     | 0.05 kg (1.4%) | 70 %  | 664 |
| Sugar | Milk Sugar (Lactose)       | 0.25 kg (6.8%) | 100 % | 0   |

### Hops

| Use for | Name     | Amount | Time   | Alpha acid |
|---------|----------|--------|--------|------------|
| Boil    | Marynka  | 9 g    | 60 min | 12.6 %     |
| Boil    | Izabella | 15 g   | 1 min  | 7.6 %      |

### Yeasts

| Name                     | Type | Form | Amount | Laboratory |
|--------------------------|------|------|--------|------------|
| Fermentis Safbrew BE-256 | Ale  | Dry  | 11.5 g | Fermentis  |

## Extras

| Type  | Name             | Amount | Use for | Time   |
|-------|------------------|--------|---------|--------|
| Spice | Kardamon         | 1 g    | Boil    | 15 min |
| Spice | Ziele angielskie | 2 g    | Boil    | 15 min |
| Spice | Imbir            | 3 g    | Boil    | 15 min |
| Spice | Cynamon          | 3 g    | Boil    | 15 min |
| Spice | Gałka            | 1 g    | Boil    | 15 min |
| Spice | Goździki         | 3 g    | Boil    | 15 min |