

Świąteczne #2

- 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 |