

Chlebowe świąteczne

- Gravity **12.4 BLG**
- ABV **5 %**
- IBU ---
- SRM **29.3**
- Style **Northern English Brown Ale**

Batch size

- Expected quantity of finished beer **15 liter(s)**
- Trub loss **5 %**
- Size with trub loss **15.8 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **19 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **7.5 liter(s)**
- Total mash volume **10 liter(s)**

Steps

- Temp **68 C**, Time **60 min**

Mash step by step

- Heat up **7.5 liter(s)** of strike water to **76C**
- Add grains
- Keep mash **60 min** at **68C**
- Sparge using **14 liter(s)** of **76C** water or to achieve **19 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|---------|--------------------------|----------------|-------|-----|
| Grain | Viking Czekoladowy jasny | 1 kg (28.6%) | 68 % | 400 |
| Grain | Viking Pale Ale malt | 1 kg (28.6%) | 80 % | 5 |
| Grain | Karmelowy Jasny 30EBC | 0.5 kg (14.3%) | 75 % | 30 |
| Adjunct | Chleb | 1 kg (28.6%) | --- % | --- |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------|------|------|--------|------------|
| Safale S-04 | Ale | Dry | 11.5 g | --- |

Extras

| Type | Name | Amount | Use for | Time |
|-------|--------------------|--------|---------|--------|
| Spice | Goździki | 30 g | Boil | 30 min |
| Spice | Cynamon | 20 g | Boil | 30 min |
| Spice | Anyż | 20 g | Boil | 30 min |
| Spice | Wanilia | 10 g | Boil | 30 min |
| Spice | Pieprz | 15 g | Boil | 30 min |
| Spice | Gałka muszkatołowa | 15 g | Boil | 30 min |
| Spice | Imbir | 20 g | Boil | 30 min |

| | | | | |
|-------|------------------|------|------|--------|
| Spice | Kardamon | 20 g | Boil | 30 min |
| Spice | Ziele angielskie | 20 g | Boil | 30 min |
| Spice | Owoc jałowca | 15 g | Boil | 30 min |