

Christmas Ale II

- Gravity **22.7 BLG**
- ABV **10.3 %**
- IBU **34**
- SRM **23.9**
- Style **Belgian Dark Strong Ale**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **90 min**
- Evaporation rate **12 %/h**
- Boil size **27.1 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **29.4 liter(s)**
- Total mash volume **39.2 liter(s)**

Steps

- Temp **66 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **29.4 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **40 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **7.5 liter(s)** of **76C** water or to achieve **27.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|---------------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 6.5 kg (63.1%) | 80 % | 4 |
| Grain | Strzegom Wiedeński | 1.5 kg (14.6%) | 79 % | 10 |
| Grain | Special B Castle | 0.7 kg (6.8%) | 70 % | 300 |
| Grain | Abbey Castle | 0.7 kg (6.8%) | 80 % | 45 |
| Grain | Caramunich® typ I | 0.4 kg (3.9%) | 73 % | 80 |
| Sugar | Cukier kandyzowany ciemny | 0.5 kg (4.9%) | 100 % | 180 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|---------|--------|--------|------------|
| Boil | Oktawia | 50 g | 60 min | 9.2 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-----------------------------|------|--------|--------|------------|
| WLP540 - Abbey IV Ale Yeast | Ale | Liquid | 40 ml | White Labs |
| Starter 10 Blg 2.2 l | | | | |

Extras

| Type | Name | Amount | Use for | Time |
|--------|---|--------|---------|--------|
| Spice | Kora cynamonu | 20.7 g | Boil | 10 min |
| Spice | Gałka muszkatolowa (1 sztuka) | 4.6 g | Boil | 10 min |
| Spice | Goździki (12 sztuk) | 0.8 g | Boil | 10 min |
| Spice | Świeży imbir | 60.7 g | Boil | 10 min |
| Flavor | Zest z słodkich pomarańczy (5 średnich) | 54.4 g | Boil | 10 min |

Dodatkowo wycisnąłem te pomarańcze, zagotowałem sok na patelni i dodałem po schłodzeniu brzezki do temperatury, w której już nie parowała.