

Christmas Ale

- Gravity **21.6 BLG**
- ABV **9.7 %**
- IBU **32**
- SRM **23.1**
- Style **Belgian Dark Strong Ale**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **90 min**
- Evaporation rate **5 %/h**
- Boil size **31 liter(s)**

Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **30.9 liter(s)**
- Total mash volume **41.2 liter(s)**

Steps

- Temp **55 C**, Time **10 min**
- Temp **63 C**, Time **40 min**
- Temp **72 C**, Time **30 min**
- Temp **78 C**, Time **5 min**

Mash step by step

- Heat up **30.9 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **10 min** at **55C**
- Keep mash **40 min** at **63C**
- Keep mash **30 min** at **72C**
- Keep mash **5 min** at **78C**
- Sparge using **10.4 liter(s)** of **76C** water or to achieve **31 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------------|----------------|-------|-----|
| Grain | Strzegom Pilzneński | 7 kg (61.7%) | 80 % | 4 |
| Grain | Strzegom Wiedeński | 1.5 kg (13.2%) | 79 % | 10 |
| Grain | Special B Castle | 0.6 kg (5.3%) | 70 % | 300 |
| Grain | Caramunich® typ I | 0.5 kg (4.4%) | 73 % | 80 |
| Grain | Biscuit Malt | 0.5 kg (4.4%) | 79 % | 45 |
| Grain | Abbey Castle | 0.2 kg (1.8%) | 80 % | 45 |
| Sugar | Syrop kandyzowany ciemny | 1.05 kg (9.3%) | 50 % | 180 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil | lunga | 55 g | 60 min | 9.5 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------------------------|------|-------|--------|------------------|
| FM26 Belgijskie Pagórki | Ale | Slant | 200 ml | Fermentum Mobile |

Extras

| Type | Name | Amount | Use for | Time |
|--------|------------------------------|--------|---------|--------|
| Spice | Kora cynamonu | 24 g | Boil | 10 min |
| Spice | Gałka muskatołowa (1 sztuka) | 4 g | Boil | 10 min |
| Spice | Goździki (8 sztuk) | 1 g | Boil | 10 min |
| Spice | Świeży imbir | 37 g | Boil | 10 min |
| Flavor | Zest z słodkich pomarańczy | 44 g | Boil | 10 min |