

X-Mas ver.2 Coop

- Gravity **18 BLG**
- ABV **7.7 %**
- IBU **27**
- SRM **52.6**
- Style **Christmas/Winter Specialty Spiced Beer**

Batch size

- Expected quantity of finished beer **12.1 liter(s)**
- Trub loss **5 %**
- Size with trub loss **13.9 liter(s)**
- Boil time **120 min**
- Evaporation rate **10 %/h**
- Boil size **18.1 liter(s)**

Mash information

- Mash efficiency **65 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **17 liter(s)**
- Total mash volume **21.8 liter(s)**

Steps

- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **60 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **17 liter(s)** of strike water to **70.3C**
- Add grains
- Keep mash **20 min** at **64C**
- Keep mash **60 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **6 liter(s)** of **76C** water or to achieve **18.1 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|-----------------------------|----------------|--------|------|
| Grain | Viking Pale Ale malt | 1 kg (18.7%) | 80 % | 5 |
| Grain | Monachijski | 2 kg (37.4%) | 80 % | 16 |
| Grain | Optima Karmel 350 | 0.75 kg (14%) | 70 % | 350 |
| Grain | Platki owsiane | 0.5 kg (9.3%) | 85 % | 3 |
| Grain | Carafa II | 0.42 kg (7.9%) | 70 % | 1000 |
| Grain | Weyermann - Chocolate Wheat | 0.18 kg (3.4%) | 74 % | 788 |
| Sugar | Milk Sugar (Lactose) | 0.5 kg (9.3%) | 76.1 % | 0 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|--------|--------|--------|------------|
| Boil | Magnum | 20 g | 40 min | 11.5 % |

Yeasts

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

Extras

| Type | Name | Amount | Use for | Time |
|-------|----------------------------|--------|---------|--------|
| Other | skórka słodkiej pomarańczy | 25 g | Boil | 10 min |
| Other | skórka pomarańczy curacao | 10 g | Boil | 10 min |
| Spice | cynamon | 10 g | Boil | 10 min |
| Spice | imbir | 6 g | Boil | 10 min |
| Spice | kolendra | 2 g | Boil | 10 min |
| Spice | gałka muskatołowa | 1 g | Boil | 10 min |
| Spice | anyż | 1 g | Boil | 10 min |

Notes

- Kooperacyjne Christmas Ale

Mleczna czekolada i kawa przeplatana z nutami przypraw świątecznych w słodkiej odstonie
Nov 11, 2017, 6:02 PM